



Town Hall Municipal Photovoltaic Installation

01/04/2024

Kyle Shute

Porter Electrical Contracting

38 North Rd

Deerfield, NH 03037

We assure you that we have the capacity to successfully complete the project with our current workload. Additionally, we offer a 90-day guarantee on the terms of our service, ensuring your satisfaction and addressing any potential concerns that may arise within this period.

Overview

Porter Electrical Contracting will install a 43.78kw roof-mounted solar array on the new town office building. It will be customer-owned, eliminating the need for a Power purchase agreement (PPA). This system will be grid-tied, will include online monitoring, revenue grade metering, and automatic REC reporting. By taking advantage of the 30% FED ITC and potentially the REAP grant which may cover up to 50% of total cost, this solar array will reduce energy costs allowing for savings to be allocated into other community needs.

Throughout the installation process we will conduct pre and post inspections to ensure a leak-free installation and guarantee the longevity of the solar system as well as the roof. To achieve this we will install 103 panels on the westerly and southerly facing roofs using flashing attachments.

Based on this design in our software your system will produce approximately 52,275kwh annually. This figure is based on panel production, solar access, and location of panels on the roof. This allows for 117% offset of your current consumption and overproduction for earned credits.

Contractor Qualifications

Porter Electrical Contracting boasts over a decade of experience in solar installations and has been a prominent player in the electrical industry for over 20 years. Our journey began by collaborating with numerous esteemed solar companies across the state as sub-contractors. Through this valuable experience, we gained profound insight into best practices as well as areas to avoid. Armed with knowledge, we have successfully established a nimble yet capable company that excels in executing large-scale projects with utmost efficiency and success. Having recently acquired the beloved local establishment, the "Blue Bowl", we have found our place in the Deerfield community. With a strong commitment to renewable energy, we aim to be pioneers in solar power, electric vehicle charging stations, and battery technology. Our objective is to contribute to the betterment of our local communities by educating the public about the advantages of renewable energy and assisting local residents and businesses in achieving cost savings. Our goal is to lead the way in sustainable solutions for a greener future.



References

1. Aman Amanullah, Project supervisor of Surya Standard Solar
Allied Dr. Suite 107, Dedham MA 02026
250kw DC Hilton Garden, Plymouth MA
Project start to finish was completed in 90 days.

2. Ross Cupples, Car Dealership owner
Cupples Car, Belmont NH 03220
127 Daniel Webster Highway, Belmont NH 03220.
43kw DC Project start to finish completed in 2 weeks.

3. Dave Smith, Business owner of Gove Electrical Contractors.
14 Gove Dr, Belmont NH 03220
45kw DC Concord Aviation Government Training Facility
Project start to finish completed in 2 weeks.

4. Bobby O'Brien, Project manager of Revision Energy
7 Commercial Dr, Brentwood NH 03833
(603)583-8927
300kw DC Keene NH low income housing development (2 months)
114kw DC Keene NH Storage units (1 month)
86kw DC Londonderry NH 55+ community (2 months)
60kw DC Nashua, Church (3 weeks)
104kw DC Nashua NTS Transit bus station (1 month)

5. Kevin Clark, Project Manager Sunbug Solar
2A Draper St, Woburn MA 01801
36kw DC Belmont MA Middle School
Project start to finish completed in 2 weeks



Contact email addresses

Kyle@porter-electrical.com

Chris@porter-electrical.com

Cost Proposal

Total system provided encompasses all associated equipment and installation, with a maximum limit of \$96,308.

Equipment

Q.cell Qtron BLK M-G2+ 425 watt panels

SolarEdge 3PH SE50kw inverter

SolarEdge P1101 DC Optimizers

Ironridge racking and attachments

See attached spec/data sheets for each.

Warranty and Maintenance

Workmanship of installation is warranted for 15 years.

Q.cell panels have a 12 year material warranty and 30 year output warranty.

SolarEdge DC optimizers have a 25 year standard warranty.

SolarEdge Inverters have a 12 year warranty.

Ironridge racking has a 25 year limited warranty.

Please see attached.

Insurance

Please see attached COI

Financial Breakdown

Location uses approximately 44,812kwh annually and 3,734kwh monthly.

System size: 43.78kw

103 - Qcell Q.tron 425 watt panels

52 - SolarEdge P1101 DC optimizers

Est old bill: \$961.56

Est new bill: \$0 (+meter fee)

Est production: 52,271kwh annually and 4,355kwh monthly

Offset: 117%

Est over production: 4,355kwh - 3,734kwh = 621kwh x .10cents = \$62.10

Est monthly savings/earnings: \$961.56(old bill) + \$62.10 (earned) = \$1023.66

Pricing:

\$96,308 Total cost

-\$28,892.40 30% FED ITC

\$67,415.60 Net cost

ROI:

$\$67,415.60 / \$1023.66 = 66 \text{ months} / 5.5 \text{ year payback}$

25 year earnings:

$\$1023.66 \times 300 \text{ mos} = \$307,098$

\$307,098

-\$67,415.60 Net cost

\$239,682.40 Net 25 year earnings

LIMITED WARRANTY FOR CRYSTALLINE PHOTOVOLTAIC MODULES FROM Qcells



qcells

Document issued on October 1st, 2022

This limited warranty ("Limited Warranty") is issued by Hanwha Q CELLS America Inc. 400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA ("Qcells"), or its successors or assigns ("HQCA"), and applies exclusively to Qcells Modules (as defined in Section 1.a.).

1. SCOPE

a. Products

Qcells Modules are defined in this Limited Warranty as Qcells branded photovoltaic modules manufactured by HQCA or its authorized manufacturers that are sold and installed within the United States, Canada, Mexico, Panama and Costa Rica and are of the following product type:

- Q.TRON-G1+, Q.TRON BLK-G1+
- Q.TRON ML-G1+, Q.TRON BLK ML-G1+
- Q.TRON M-G2+, Q.TRON BLK M-G2+
- Q.TRON M-G2+/t, Q.TRON BLK M-G2+/t

b. Beneficiary

The sole and exclusive beneficiary of this Limited Warranty is an end customer who purchases Qcells Modules from HQCA or from any one of its authorized distributors ("Distributor") and is the initial installer of such modules into a specific photovoltaic (PV) solar energy project ("Project"), and any of the end customer's permitted successors or assigns ("Customer").

c. Term

The term of this Limited Warranty ("Term") for the Customer begins on the delivery date to the original Customer ("Warranty Start Date") and ends at the end of the warranty periods set forth in Section 2.. If the Customer is unable to provide sufficient and adequate documentation of the delivery date to the original Customer, the "Warranty start Date" sixty (60) days after the following the Module(s) was manufactured as indicated by the serial number. The performance of warranty services under this Limited Warranty does not extend the Term. HQCA's obligations under this Limited Warranty are conditioned upon the Customer's compliance with its payment obligations for purchase of the applicable Qcells Module.

2. WARRANTY

a. Product Warranty

Subject to the terms and conditions in this Limited Warranty, HQCA warrants to the Customer for a period of twenty-five (25) years following the Warranty Start Date that the Qcells Modules, when installed, used, and serviced under normal operating conditions and in accordance with Qcells Module Installation Manual provided by HQCA or Distributor will be free from any defects in materials and workmanship that have a significantly negative effect on the power output of the Qcells Modules (collectively, "Product Defect"). The Product Warranty does not warrant a specific power output of the Qcells Modules, which shall be exclusively covered under the Performance Warranty in Section 2.b.. Product Defect does not include any cosmetic changes or other changes in the Qcells Modules' appearance, including but not limited to, any color changes, mold and normal wear and tear.

b. Performance Warranty

Subject to the terms and conditions of this Limited Warranty, HQCA warrants to the Customer that the Qcells Modules are manufactured to (i) produce a power output of at least ninety-eight point five percent (98.5%) of the minimum power output specified in the applicable module data sheet during the first twelve (12) months following the Warranty Start Date, and (ii) have a yearly maximum decrease (or degradation) of power of not more than thirty-three hundredths of one percent (0.33%) from start of the second (2nd) twelve (12)-month period following the Warranty Start Date until the end of such twelve (12)-month period, and repeated for each successive twelve (12)-month period until the twenty-fifth (25th) anniversary of the Warranty Start Date, (collectively, "Performance Warranty"). As an example, the Qcells Module will be manufactured to have a minimum power output of ninety point fifty-eight percent (90.58%) of the minimum power output specified in the applicable module data sheet at the end of the term of this Limited Warranty. Failure to meet the Performance Warranty is defined herein as a "Performance Defect." In the event of a Performance Defect claim, the power output of any Qcells Modules described in this Section 2.b. shall be measured by HQCA under the Standard Test Conditions ("STCs") defined in the IEC standards EN 61215 and 60904-3 in effect as of the Warranty Start Date.

3. EXCLUSIONS

The Limited Warranty shall not apply to any Qcells Modules affected by the following events or conditions:

1. usage, transport, storage, installation and/or handling in any manner that fails to strictly comply with the Installation Manual and the Packaging and Transportation Information sheet (provide upon request) applicable to the Qcells Modules;
2. system or components of such system that are of a design, configuration or installation that does not meet the standards typically used by experienced professionals in the industry;
3. incorrect, improper or inadequate service, operation or maintenance of the Qcells Modules or of the Project, or any normal wear and tear of the Qcells Modules;
4. damage caused by extreme environmental sources of impact, including, but not limited to (i) acid rain or snow, (ii) blowing sand, (iii) saline air, (iv) pollution of any kind in the air, soil or groundwater, (v) unusual oxidation levels, (vi) mold, or (vii) any nearby fire, explosion, smoke or charring;
5. damage caused by acts of nature or acts of God, including, but not limited to, lightning, hail, frost, snow, storms, tidal waves, floods, extreme temperatures, earthquakes, typhoons, tornadoes, volcanic eruptions, meteorites, ground motions, earth fissures or landslides;
6. damage caused directly or indirectly by acts of violence or intervention by third parties or external forces, including but not limited to, misadventure, riots, war, insurrection, communal violence, unintentional damage by third parties, vandalism, damage caused by animals, and/or acts or omissions by third parties beyond the reasonable control of HQCA;
7. damage to the Project in which the Qcells Modules are installed caused by external factors, including, but not limited to, voltage fluctuations, power peaks, excess current, power failure, poor electrical or mechanical engineering work, or other faults occurring in a power supply system with or without mains connection, whether or not such faults in the power supply system was contributed to by any act or omission of the Customer;
8. Qcells Modules are modified or used in processes involving other products, without obtaining the prior written consent of HQCA;
9. the serial number or product label has been removed, changed, deleted or made unrecognizable;
10. the Qcells Modules are used on any mobile carriers (such as motor vehicles or ships)
11. the conditions of use at the Project, at any time, exceed the specifications set out in the applicable module data sheet; and/or
12. the Customer fails to notify HQCA of a Product Defect or Performance Defect within 30 days of the initial discovery or prior to the end of the applicable warranty period set forth in Section 2..

4. WARRANTY CLAIMS

a. Customer Inspection

The original Customer must inspect the Qcells Modules for visible defects and notify HQCA of any defects within 30 days of the delivery of the Qcells Modules ("Inspection Period"). If Customer does not notify HQCA of the visible defects within the Inspection Period, such modules shall be deemed as being accepted by the Customer.

b. Warranty Claims

The Customer will be entitled to make claims under this Limited Warranty ("Warranty Claims") only if the Customer has provided documented evidence sufficient to prove that the malfunctioning or non-conformity of the Qcells Modules resulted exclusively from a Product Defect or Performance Defect covered by this Limited Warranty. If the Warranty Claim is based on glass breakage, then the Customer shall conduct a static load calculation on the substructure.

c. Warranty Claim Compliance

The Customer must comply with the HQCA's current Return Merchandise Authorization ("RMA") process (available upon request) to make any Warranty Claim. HQCA will not accept any Warranty Claims not in compliance with the RMA or Warranty Claims that use the delivery of any unauthorized return shipments of Qcells Modules.

d. Warranty Claim Procedure

The Customer is responsible for shipping the Qcells Modules to HQCA for evaluation at the Customer's expense. HQCA shall pay the costs of a technical inspection and, in the event that the warranty claim is confirmed by such inspection, transportation. Otherwise, the Customer shall be charged with these costs. To make a Warranty Claim, the Customer must submit the original receipt or invoice, which bears the date of the purchase and of the delivery, the serial numbers of the relevant Qcells Modules and the name of the authorized distributor or seller.

e. Ownership Interest

The Qcells Modules sent to HQCA in the course of the RMA process shall remain the property of the Customer until any inspection has been completed and HQCA provides a replacement or refund. At the time any refund or delivery of a replacement Qcells Module to the Customer takes place under this Limited Warranty, the ownership interest of the defective module passes to HQCA. Any repaired, replaced or additionally supplied modules will be warranted only for the remainder of the original warranty period applicable to the original Qcells Modules.

5. REMEDIES

a. Product Defect Remedy

If HQCA determines, following a Warranty Claim, that a Qcells Module has a Product Defect, then HQCA shall, at its discretion, within a reasonable time: (i) remedy or repair the Product Defect; (ii) provide a replacement module in place of the Qcells Module with the Product Defect; or (iii) provide the Customer monetary compensation equal to the purchase price of the Qcells Module subject to an annual four percent (4%) depreciation rate on the original purchase price as evidenced by the invoice produced by the Customer, provided, however, if the Customer fails to produce an original invoice, then the price shall be based upon the then-current per watt market price of a comparable PV module in a similar market and the date shall be based upon the date of manufacture according to the HQCA records.

b. Performance Warranty Remedy

If HQCA determines following a Warranty Claim that a Qcells Module has a Performance Defect, then HQCA shall, at its discretion, within a reasonable time: (i) remedy or repair the Performance Defect; (ii) provide a replacement module in place of the Qcells Module that has the Performance Defect; (iii) make up the difference to the guaranteed power output by providing additional modules; or (iv) provide to the Customer monetary compensation that shall be calculated at the time of a justified Customer's Warranty Claim subject to Section 4. of this Limited Warranty, and shall be the difference between the applicable guaranteed power output and actual power output (measured by the STCs) multiplied by the price per watt of the Qcells Module (in which such price shall be calculated by applying an annual four percent (4%) depreciation rate to the purchase price as evidenced by the original invoice provided by the Customer); monetary compensation = depreciated purchase price per watt × (guaranteed power output – actual power output); provided, however, if the Customer fails to produce an original invoice, then the price shall be based upon the then current per watt market price of a comparable PV module in a similar market and the date shall be based upon the date of manufacture according to the HQCA records.

c. Discontinued products

In the event the Module(s) is no longer available, Qcells reserves the right to deliver replacement Module(s) that may differ in size, color, shape, model number, but with equivalent or higher power level.

d. Sole and Exclusive Remedy and Obligation

THE REMEDIES SET FORTH IN THIS SECTION 5. ARE HQCA'S SOLE AND EXCLUSIVE LIABILITY AND OBLIGATION, AND THE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES, FOR ANY PRODUCT DEFECT OR PERFORMANCE DEFECT IN ANY Qcells MODULE. THE REMEDY EXTENDED TO THE CUSTOMER SPECIFICALLY EXCLUDES ANY REIMBURSEMENT FOR THE COSTS OR EXPENSES INCURRED IN THE DISMANTLING OR INSTALLATION OF THE Qcells MODULES, REPLACEMENT MODULES OR PARTS, OR LOSS OF POWER.

6. WARRANTY LIMITATIONS

THE WARRANTIES SET FORTH IN THIS LIMITED WARRANTY ARE IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED, OR STATUTORY, REGARDING ANY Qcells MODULES, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT.

HOWEVER, IF A Qcells MODULE IS SOLD AS A CONSUMER PRODUCT, TO THE EXTENT REQUIRED BY APPLICABLE LAW, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT ARE LIMITED TO THE PERIODS OF THE LIMITED PRODUCT AND LIMITED PERFORMANCE WARRANTIES SET FORTH ABOVE, OR SUCH SHORTER PERIOD AS REQUIRED BY APPLICABLE LAW. THIS LIMITED WARRANTY GIVES THE CUSTOMER SPECIFIC LEGAL RIGHTS, AND THE CUSTOMER MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. HQCA IS NOT RESPONSIBLE OR LIABLE IN ANY WAY FOR DAMAGE OR INJURY TO PERSONS OR PROPERTY, OR FOR OTHER LOSS OR INJURY RESULTING FROM ANY CAUSE WHATSOEVER, ARISING OUT OF OR RELATED TO ANY Qcells MODULES UNLESS OTHERWISE STIPULATED BY MANDATORY STATUTORY LAW. IN PARTICULAR, HQCA'S LIABILITY FOR FRAUDULENT OR WILLFUL INTENT, GROSS NEGLIGENCE OR PERSONAL INJURY, IN EACH CASE, UNDER APPLICABLE MANDATORY LIABILITY LAW SHALL REMAIN UNAFFECTED.

EXCEPT AS PROVIDED IN THIS SECTION 6., THE Qcells MODULES, THE PRODUCT DOCUMENTATION AND ALL INFORMATION ARE PROVIDED ON AN "AS IS" BASIS.

THE CUSTOMER ACKNOWLEDGES THAT THE FOREGOING LIMITATIONS ON LIABILITY ARE AN ESSENTIAL ELEMENT OF THE RELEVANT SALES AGREEMENT BETWEEN THE PARTIES AND THAT IN THE ABSENCE OF SUCH LIMITATIONS THE PURCHASE PRICE OF THE Qcells MODULES WOULD BE SUBSTANTIALLY HIGHER.

SOME JURISDICTIONS LIMIT OR DO NOT PERMIT DISCLAIMERS OF LIABILITY, SO THIS PROVISION MAY NOT APPLY TO THE CUSTOMER IN SAID JURISDICTION. SOME JURISDICTIONS DO NOT ALLOW LIMITATIONS OR THE EXCLUSION OF DAMAGES SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO THE CUSTOMER IN SAID JURISDICTION. THE CUSTOMER MAY HAVE SPECIFIC LEGAL RIGHTS OUTSIDE THIS LIMITED WARRANTY FOR Qcells MODULES, AND MAY ALSO HAVE OTHER MANDATORY RIGHTS THAT VARY FROM JURISDICTION TO JURISDICTION, WHICH SHALL REMAIN UNAFFECTED.

IN NO EVENT WILL HQCA BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, EXEMPLARY, SPECIAL OR INCIDENTAL DAMAGES, INCLUDING LOSS OF USE, LOST REVENUE AND/OR LOST POWER, ARISING FROM OR RELATING TO THIS WARRANTY OR ANY Qcells MODULE OR ANY REPLACEMENT OR ADDITIONAL MODULE SUPPLIED BY HQCA HEREUNDER, EVEN IF HQCA IS AWARE OF THE POSSIBILITY OF SUCH DAMAGES.

THE TOTAL LIABILITY OF HQCA, ANY DISTRIBUTOR, AND/OR THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES AND AGENTS ARISING FROM OR RELATING TO THIS LIMITED WARRANTY, WHETHER IN CONTRACT, TORT OR OTHERWISE, WILL NOT EXCEED THE AMOUNT RECEIVED BY HQCA FOR THE Qcells MODULE THAT IS THE SUBJECT OF THE CLAIM OR DISPUTE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO THE CUSTOMER IN SAID JURISDICTION.

7. ASSIGNMENT

Customer Assignment

Customer Assignment. Customer may assign this Limited Warranty for any Qcells Module to a new owner of the entire photovoltaic system in which such module is originally installed, provided that such system remains intact in its original place of installation. This Limited Warranty may not otherwise be assigned or transferred, and any attempt to assign or transfer in violation of this Section 7. shall be null and void.

8. MISCELLANEOUS

a. Survival

If any provision of this Limited Warranty terms and conditions is held to be invalid, illegal or unenforceable in any respect, such provision will be changed and interpreted to accomplish the objectives of such provision to the greatest extent possible under applicable law and the remaining provisions will continue in full force and effect.

b. Governing Law

All matters arising from or relating to this Limited Warranty shall be governed by the laws of the State of California, without regard to its choice of law rules. The UN Convention on the International Sale of Goods shall not apply.

c. Waiver of Jury Trial; Jurisdiction

Any dispute, controversy or claim arising out of or relating to this Limited Warranty or any of its provisions, or the breach, termination, interpretation, enforcement or validity thereof, including any dispute hereby is waived to the fullest extent permitted by applicable Law any right it may have to a trial by jury with respect to any litigation directly or indirectly arising out of, under or in connection with this Limited Warranty. Any dispute, controversy or claim arising out of or relating to this Limited Warranty or any of its provisions, or the breach, termination, interpretation, enforcement or validity thereof, including any dispute irrevocably is submitted to the jurisdiction of the courts of the State of California and the federal courts of the United States of America located in the State of California solely in respect of the interpretation and enforcement of the provisions of this Limited Warranty.

Power Optimizer

For North America

P1101



POWER OPTIMIZER

PV power optimization at the module level

The most cost-effective solution for commercial and large field installations

- Specifically designed to work with SolarEdge inverters
- High efficiency with module-level MPPT, for maximized system energy production and revenue, and fast project ROI
- Superior efficiency (99.5%)
- Balance of System cost reduction; 50% less cables, fuses, and combiner boxes; over 2x longer string lengths possible
- Fast installation with a single bolt
- Advanced maintenance with module-level monitoring
- Module-level voltage shutdown for installer and firefighter safety
- Meets NEC requirements for arc fault protection (AFCI) and Photovoltaic Rapid Shutdown System (PVRSS)

/ Power Optimizer

For North America

P1101

Power Optimizer Model (Typical Module Compatibility)	P1101 (for up to 2 x high power or bi-facial modules)	Units	
INPUT			
Rated Input DC Power ⁽¹⁾	1100	W	
Connection Method	Single input for series connected modules		
Absolute Maximum Input Voltage (Voc at lowest temperature)	125	Vdc	
MPPT Operating Range	12.5 – 105	Vdc	
Maximum Short Circuit Current (Isc)	14.1	Adc	
Maximum Short Circuit Current per Input (Isc)	-	Adc	
Maximum Efficiency	99.5	%	
Weighted Efficiency	98.6	%	
Overvoltage Category	II		
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)			
Maximum Output Current	18	Adc	
Maximum Output Voltage	80	Vdc	
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)			
Safety Output Voltage per Power Optimizer	1 ± 0.1	Vdc	
STANDARD COMPLIANCE			
Photovoltaic Rapid Shutdown System	Compliant with NEC 2014, 2017, 2020		
EMC	FCC Part 15 Class A, IEC61000-6-2, IEC61000-6-3		
Safety	IEC62109-1 (class II safety), UL1741, UL3741, CSA C22.2#107.1		
Material	UL94 V-0, UV resistant		
RoHS	Yes		
INSTALLATION SPECIFICATIONS			
Compatible SolarEdge Inverters	All commercial three phase inverters		
Maximum Allowed System Voltage	1000	Vdc	
Dimensions (W x L x H)	129 x 162 x 59 / 5.1 x 6.4 x 2.32	mm / in	
Weight	1064 / 2.34	gr / lb	
Input Connector	MC4 ⁽²⁾		
Input Wire Length Options	1	1.6 / 5.2	m / ft
	2		
	3		
Output Wire Type / Connector	Double insulated; MC4		
Output Wire Length	2.4 / 7.8	m / ft	
Operating Temperature Range ⁽³⁾	-40 to +85 / -40 to +185	°C / °F	
Protection Rating	IP68 / NEMA6P		
Relative Humidity	0 – 100	%	

(1) Rated power of the module at STC will not exceed the Power Optimizer "Rated Input DC Power". Modules with up to +5% power tolerance are allowed.

(2) For other connector types please refer to the [Power Optimizer Input Connector Compatibility Technical Note](#).

(3) For ambient temperatures above +0°C / +158°F power de-rating is applied. Refer to [Power Optimizers De-Rating Application Note](#) for more details.

PV System Design Using a SolarEdge Inverter ^{(4),(5)}		208V Grid SE10K	208V Grid SE17.3K*	277/480V Grid SE30K	277/480V Grid SE40K*	
Compatible Power Optimizers		P1101				
Minimum String Length	Power Optimizers	8	10	14	14	
	PV Modules	15	19	27	27	
Maximum String Length	Power Optimizers	30	30	30	30	
	PV Modules	60	60	60	60	
Maximum Continuous Power per String		7200	8820	15300	15300	W
Maximum Allowed Connected Power per String ⁽⁶⁾		1 string – 8400	1 string – 10020	1 string – 17550	2 strings or less – 17550	W
		2 strings or more – 9800	2 strings or more – 12020	2 strings or more – 20300	3 strings or more – 20300	
Parallel Strings of Different Lengths or Orientations		Yes				
Maximum Difference in Number of Power Optimizers Allowed Between the Shortest and Longest String Connected to the Same Inverter Unit		5 Power Optimizers				

* The same rules apply for Synergy units of equivalent power ratings, that are part of the modular Synergy Technology inverter.

(4) For each string, a Power Optimizer may be connected to a single PV module if 1) each Power Optimizer is connected to a single PV module or 2) it is the only Power Optimizer connected to a single PV module in the string.

(5) Design with three phase 208V inverters is limited. Use the [SolarEdge Designer](#) for verification.

(6) To connect more STC power per string, design your project using [SolarEdge Designer](#).

Three Phase Inverter with Synergy Technology

SE50K / SE55K / SE82.8K



INVERTERS

Specifically designed to work with power optimizers

- Easy two-person installation – each unit mounted separately, equipped with cables for simple connection between units
- Balance of System and labor reduction compared to using multiple smaller string inverters
- Independent operation of each unit enables higher uptime and easy serviceability
- No wasted ground area: wall/rail mounted or horizontally mounted under the modules (10° inclination)
- Built-in module-level monitoring with Ethernet or cellular GSM
- Fixed voltage inverter for superior efficiency (98.3%) and longer strings
- Integrated Connection Unit with optional integrated DC Safety Switch – eliminates the need for external DC isolators
- Built-in RS485 Surge Protection, to better withstand lightning events
- Advanced safety features - integrated arc fault protection and optional rapid shutdown

/ Three Phase Inverter with Synergy Technology

SE50K / SE55K / SE82.8K

	SE50K ⁽¹⁾	SE55K	SE82.8K	
OUTPUT				
Rated AC Power Output	50000 ⁽²⁾	55200	82800	VA
Maximum AC Power Output	50000 ⁽²⁾	55200	82800	VA
AC Output Voltage — Line to Line / Line to Neutral (Nominal)	380/220 ; 400/230			Vac
AC Output Voltage — Line to Line Range / Line to Neutral Range	304 - 437 / 176 - 253 ; 320 - 460 /184 - 264.5			Vac
AC Frequency	50/60 ± 5			Hz
Maximum Continuous Output Current (per Phase) @Vac,nom	76	80	120	A
Grids Supported — Three Phase	3 / N / PE (WYE with Neutral)			V
Maximum Residual Current Injection	250 per unit ⁽⁵⁾			mA
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes			
INPUT				
Maximum DC Power (Module STC), Inverter / Unit	67500 / 33750	74520 / 37260	111750 / 37250	W
Transformer-less, Ungrounded	Yes			
Maximum Input Voltage	1000			Vdc
Nominal DC Input Voltage	750			Vdc
Maximum Input Current	2 x 37	2 x 40	3 x 40	Adc
Reverse-Polarity Protection	Yes			
Ground-Fault Isolation Detection	350kΩ Sensitivity per Unit ⁽⁴⁾			
Maximum Inverter Efficiency	98.3			%
European Weighted Efficiency	98			%
Nighttime Power Consumption	< 12			W
ADDITIONAL FEATURES				
Supported Communication Interfaces ⁽⁵⁾	RS485, Ethernet, GSM plug-in (optional)			
RS485 Surge Protection	Built-in			
Rapid Shutdown	Optional ⁽⁶⁾ (Automatic upon AC Grid Disconnect)			
CONNECTION UNIT				
DC Disconnect (optional)	1000V / 2 x 40A		1000V / 3 x 40A	
STANDARD COMPLIANCE				
Safety	IEC-62109, AS3100			
Grid Connection Standards ⁽⁷⁾	VDE-AR-N-4105, G99, AS-4777,EN 50438 , CEI-021,VDE 0126-1-1, CEI-016, BDEW			
Emissions	IEC61000-6-2, IEC61000-6-3 , IEC61000-3-11, IEC61000-3-12			
RoHS	Yes			
INSTALLATION SPECIFICATIONS				
Number of Units	2		3	
AC Output Cable	Cable gland — diameter 22-32; PE gland diameter 10-16		Cable gland — diameter 30-38; PE gland diameter 10-16	mm
DC Input ⁽⁸⁾	6 strings, 4-10mm ² DC wire, gland outer diameter 5-10mm / 3 MC4 pairs per unit		9 strings, 4-10mm ² DC wire, gland outer diameter 5-10mm / 3 MC4 pairs per unit	
AC Output Wire	Aluminum or Copper; L, N: Up to 70, PE: Up to 35		Aluminum or Copper; L, N: Up to 95, PE: Up to 50	mm ²
Dimensions (H x W x D)	Primary Unit: 940 x 315 x 260; Secondary Unit: 540 x 315 x 260			mm
Weight	Primary Unit: 48; Secondary Unit: 45			kg
Operating Temperature Range	-40 to +60 ⁽⁹⁾			°C
Cooling	Fan (user replaceable)			
Noise	< 60			dBA
Protection Rating	IP65 — Outdoor and Indoor			
Mounting	Bracket provided			

(1) Available in some countries. Refer to: https://www.solaredge.com/sites/default/files/se_inverters_supported_countries.pdf

(2) 49990 in the UK

(3) If an external RCD is required, its trip value must be ≥ 300mA per unit (≥ 600mA for SE50K/SE55K; ≥ 900mA for SE82.8K)

(4) Where permitted by local regulations

(5) Refer to Datasheets -> Communications category on Downloads page for specifications of optional communication options: <http://www.solaredge.com/groups/support/downloads>

(6) Inverter with rapid shutdown part number: SExxK-RWxxxxxx; Available for SE55K and SE82.8K

(7) For all standards refer to Certifications category on Downloads page: <http://www.solaredge.com/groups/support/downloads>

(8) The DC input type, MC4 or glands, and DC switch depends on the part number ordered. Inverter with glands and DC switch P/N: SExxK-xx0P0BNG4, inverter with glands and without DC switch P/N: SExxKxx0P0BNA4, inverter with MC4 and with DC switch P/N: SExxK-xx0P0BNU4, inverter with MC4 and without DC switch P/N: SExxK-xx0P0BNU4

(9) For power de-rating information refer to: <https://www.solaredge.com/sites/default/files/se-temperature-derating-note.pdf>

LIMITED PRODUCT WARRANTY

This SolarEdge Technologies Ltd. Limited Warranty covers defects in workmanship and materials of the below-listed products for the applicable Warranty Period set out below (the "Products"):

Power optimizers: 25 years commencing on the earlier of: (i) 4 months from the date the power optimizers are shipped from SolarEdge; and (ii) the installation of the power optimizers, *provided, however*, that for the module embedded power optimizers (CSI and OPJ models), the Warranty Period shall not exceed the maximum of (1) the module product warranty and (2) the module power warranty periods provided by the applicable module manufacturer.

Inverters, Safety & Monitoring Interface (SMI), Auto-transformer, Backup Interface: 12* years commencing on the earlier of: (i) 4 months from the date the products are shipped from SolarEdge; and (ii) the installation of the products.

StorEdge Interface: 10 years commencing on the earlier of: (i) 4 months from the date the Interfaces are shipped from SolarEdge; and (ii) the installation of the Interfaces.

ZigBee Gateway, Commercial Gateway, Firefighter Gateway, Smart Energy products, Cellular Communication Products, RS485 Plug-in, Energy Meter, Smart EV Charger: 5 years commencing on the earlier of: (i) 4 months from the date the product is shipped from SolarEdge; and (ii) the installation of the product. Warranty duration of wireless communication products is the same whether or not the product is pre-installed in the inverter.

* In some countries the inverter warranty is limited to 7 years. For a list of these countries please access http://www.solaredge.com/articles/warranty_exceptions

The Limited Warranty does not apply to components which are separate from the Products, ancillary equipment and consumables, such as, for example, cables, cable holders, fuses, wires and connectors, whether supplied by SolarEdge or others. Some components may carry their own manufacturer warranty. See product datasheet for more details. In addition, for all power optimizers with a part number ending in C, the SolarEdge warranty does not apply to the input connector.

The Limited Warranty only applies to the buyer who has purchased the Products from an authorized seller of SolarEdge for use within the continent where SolarEdge originally sold the Products and in accordance with their intended purpose. The Limited Warranty may be transferred from buyer to any assignee, and will remain in effect for the time period remaining under the foregoing warranties, *provided* that the Products are not moved outside their original country of installation and any reinstallation is done in accordance with the installation directions and use guidelines accompany the Products (collectively the "*Documentation*").

If, during the applicable Warranty Period, buyer discovers any defect in workmanship and materials and seeks to activate the Limited Warranty, then buyer shall, promptly after such discovery, report the defect to SolarEdge by sending an email to support@solaredge.com with the following information: (i) a short description of the defect, (ii) the Product's serial number, and (iii) a scanned copy of the purchase receipt or warranty certificate of the applicable Product.

Upon buyer's notification, SolarEdge shall determine whether the reported defect is eligible for coverage under the Limited Warranty. The Product's serial number must be legible and properly attached to the Product in order to be eligible for Warranty coverage. If SolarEdge determines that the reported defect is not eligible for coverage under the Limited Warranty, SolarEdge will notify buyer accordingly and will

explain the reason why such coverage is not available. If SolarEdge determines that the reported defect is eligible for coverage under the Limited Warranty, SolarEdge will notify buyer accordingly, and SolarEdge may, in its sole discretion, take any of the following actions:

repair the Product at SolarEdge's facilities or on-site; or

issue a credit note for the defective Product in an amount up to its actual value at the time buyer notifies SolarEdge of the defect, as determined by SolarEdge, for use toward the purchase of a new Product; or

provide Buyer with replacement units for the Product.

SolarEdge will determine whether the Product should be returned to SolarEdge and, if SolarEdge so determined, the Return Merchandise Authorization ("RMA") Procedure (set out below) will be invoked. Where replacement Products are sent, SolarEdge generally sends such products within 48 hours. SolarEdge may use new, used or refurbished parts that are at least functionally equivalent to the original part when making warranty repairs. The repaired Product or replacement parts or Product, as applicable, shall continue to be covered under the Limited Warranty for the remainder of the then-current Warranty Period for the Product.

Where the RMA Procedure is invoked by SolarEdge, SolarEdge will instruct buyer how to package and ship the Product or part(s) to the designated location. SolarEdge will bear the cost of such shipment, upon receipt of the Product or part(s), SolarEdge will, at its expense and sole discretion, either repair or replace the Product or part(s).

SolarEdge will deliver the repaired or replaced Product or part(s) to buyer at buyer's designated location in countries where SolarEdge has an office and/or there is a significant PV market. For the specific list of countries to which such service is provided, please access

http://www.solaredge.com/articles/shipping_cost_coverage_warranty. SolarEdge will bear the cost of such shipment, including shipping and customs (where applicable) and buyer shall bear any applicable value added tax. SolarEdge may elect to ship replacement Product and/or part(s) prior to receipt of the Product and/or part(s) to be returned to SolarEdge as per the above.

All costs, including, without limitation, labor, travel and boarding costs of SolarEdge service personnel or others that are incurred for labor relating to repairs, uninstalling and reinstalling of Products on-site, as well as costs related to buyer's employees and contractors repair or replacement activities, are not covered by the Limited Warranty and, unless otherwise agreed in writing in advance by SolarEdge, shall be borne by the buyer.

Warranty Exclusions: This Limited Warranty will not apply if (a) buyer is in default under the General Terms and Conditions of other Agreement governing the purchase of the Product, or (b) the Product or any part thereof is:

- damaged as a result of misuse, abuse, accident, negligence or failure to maintain the Product;
- damaged as a result of modifications, alterations or attachments thereto which were not pre-authorized in writing by SolarEdge;
- damaged due to the failure to observe the applicable safety regulations governing the proper use of the Product;
- installed or operated not in strict conformance with the Documentation, including without limitation, not ensuring sufficient ventilation for the Product as described in SolarEdge installation guide;
- opened, modified or disassembled in any way without SolarEdge's prior written consent;

- used in combination with equipment, items or materials not permitted by the Documentation or in violation of local codes and standards;
- damaged by software, interfacing, parts, supplies or other product not supplied by SolarEdge;
- damaged as a result of improper site preparation or maintenance or improper installation;
- damaged or rendered non-functional as a result of power surges, lightning, fire, flood, pest damage, accident, action of third parties, direct exposure to sea water or other events beyond SolarEdge's reasonable control or not arising from normal operating conditions; or
- damaged during or in connection with shipping or transport to or from buyer where buyer arranges such shipping or transport.

Additional exclusions from this Warranty:

- Any EV charger cable that is damaged due to: physical abuse and damage, commercial use, rust, water damage, domestic wear and tear, use of car inlets which are incompatible with the Smart EV Charger connector;
- Cellular Wireless Communication plans which are governed under the SolarEdge Communication Plan Terms and Conditions available on the SolarEdge website; or
- The SolarEdge Energy Bank battery which is covered under the SolarEdge Energy Bank battery Warranty available on the SolarEdge website.

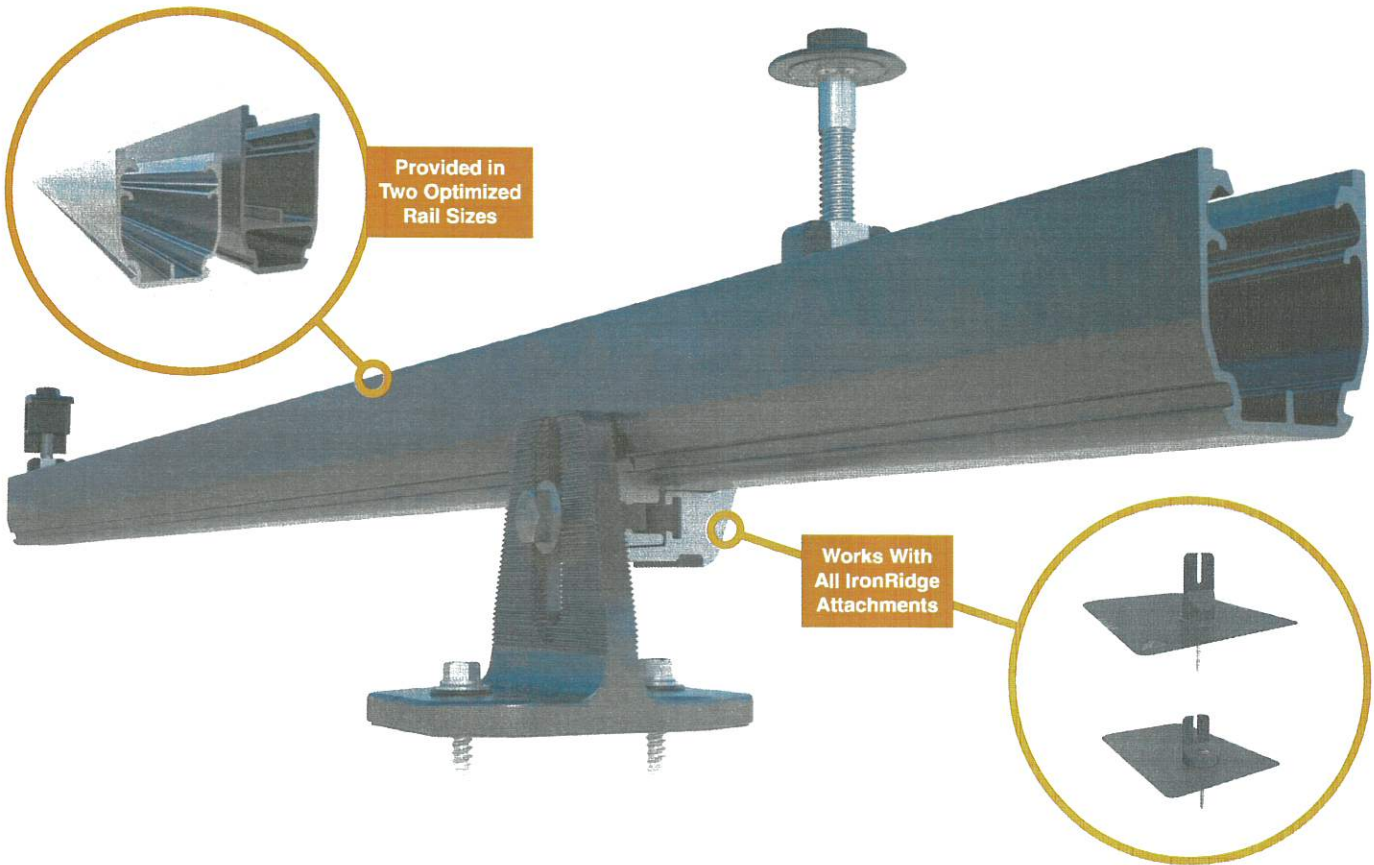
This Limited Warranty does not cover cosmetic or superficial defects, dents, marks or scratches, which do not influence the proper functioning of the Product.

THE LIMITED WARRANTIES SET OUT HEREIN ARE IN LIEU OF ANY OTHER WARRANTIES WITH RESPECT TO THE PRODUCTS PURCHASED BY BUYER FROM SOLAREEDGE, WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL (INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), ALL OF WHICH ARE EXPRESSLY EXCLUDED TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW.

Claims by buyer that go beyond the warranty terms set out herein, including claims for compensation or damages, are not covered by the Limited Warranty, insofar as SolarEdge is not subject to statutory liability. In such cases, please contact the company that sold you the Product. Eventual claims in accordance with the law on product liability remain unaffected.

Coverage under the Limited Warranty is subject to buyer complying with the foregoing notification requirements and cooperating with SolarEdge's directions. SolarEdge's sole obligation and buyer's exclusive remedy for any defect warranted hereunder is limited to those actions expressly stated above. Such actions are final and do not grant any further rights, in particular with respect to any claims for compensation.


Unless otherwise specified in an executed Agreement with SolarEdge, the Limited Warranty and related provisions set out herein are subject to SolarEdge's General Terms and Conditions, including, without limitation, the provisions thereof, which relate to disclaimer of warranties, limitation of liability and governing law and jurisdiction.




Breathe easy with accelerated installations.

The Aire® racking system has been carefully engineered to streamline every part of the installation process. We've eliminated 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 depend on. It also takes wire management to the next level with the first (and only) NEC-compliant rail, formally approved and listed as a cable tray.




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.



Approved Cable Tray
Open channel listed to NEMA VE 1, certified to hold PV and DG cables.



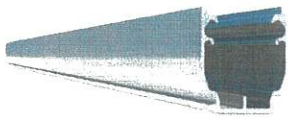
UL 2703 Listed System
Entire system and components meet the latest effective UL 2703 standards.



25-Year Warranty
Products are guaranteed to arrive without any impairing defects.

Rails

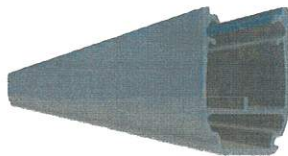
Aire® A1 Rail



The lighter, open Aire® rail for standard conditions.

- 6' spanning capability
- Wire management tray
- Mill or anodized black

Aire® A2 Rail



The tougher, open Aire® rail for higher load capacity.

- 8' spanning capability
- Wire management tray
- Mill or anodized black

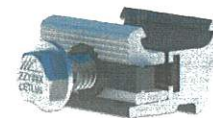
Aire® Rail Ties



Structurally connect and bond Aire™ Rails together.

- Reinstallable, up to 5x
- Internal splice design
- No more splice rules

Aire® Dock

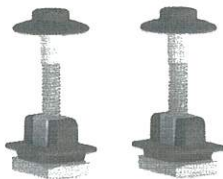


Connects Aire® Rails to attachments with ease.

- Clicks on, slides easily
- Drops into open slots
- Anodized assembly

Clamps & Grounding

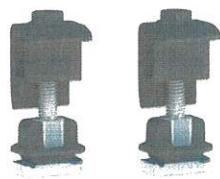
Aire® Lock Mids



Securely bond between modules to Aire® Rails.

- Fits 30-40mm modules
- Utilizes UFO® design
- Minimal 1/2" gap

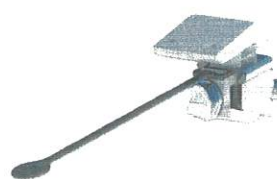
Aire® Lock Ends



Securely bond modules to Aire® Rails along ends.

- Fits 30-40mm modules
- Easy rail engagement
- Clean aesthetics

Aire® Lock Stealth®



Securely bonds modules to rail ends, entirely hidden.

- Angled for easy install
- Robust tether leash
- Fits most modules

Aire® Lug



Bonds Aire® Rails to grounding conductors.

- Simplified with single bolt
- Low-profile form factor
- Works with 10-6 AWG

Accessories

Aire® Caps



Block entry and provide a finished look to Aire® Rails.

- Stay secure on rail ends
- Symmetrical, with drain
- Cover rough-cut ends

Aire® Clip



Keeps wiring contained in open Aire® Rail channels.

- No module interference
- Simple press-in design
- Slot for easy removal

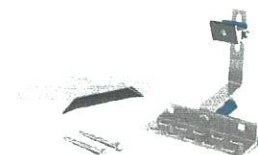
Aire® MLPE Mount



Securely bonds MLPE and accessories to Aire® Rails.

- Glove-friendly installation
- Lays flush in rail channel
- Low profile form factor

Aire® All Tile Hook



Attaches rails to tile roofs, with Aire® Dock included.

- Works on flat, S, & W tiles
- Single-socket installation
- Optional deck flashing

Resources



Design Assistant

Quickly go from rough layout to fully engineered system.

Go to [IronRidge.com/design](https://www.ironridge.com/design)



Approved for FL Hurricane Zones

Aire® has Florida Product Approval. Additional details can be found on the Florida Building Code website.

Learn More at bit.ly/florida-aire

Limited Warranties and Disclaimer

THIS LIMITED WARRANTY CAN ALSO BE FOUND ONLINE AT WWW.IRONRIDGE.COM.

IRONRIDGE WARRANTS THAT DURING THE WARRANTY PERIOD, THE PRODUCT WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP, AS FURTHER PROVIDED BELOW.

IRONRIDGE'S RESPONSIBILITY FOR DEFECTIVE GOODS IS LIMITED TO REPAIR, REPLACEMENT, OR REFUND AS DESCRIBED IN THIS WARRANTY STATEMENT.

Who may use this Warranty?

IronRidge extends this limited warranty only to the party who originally purchased IronRidge or QuickMount PV (the "**Products**"), and any subsequent owner of the Products, subject to assignability below ("**Purchaser**"), provided the Products are installed properly and used for the purpose for which the Products are designed.

This limited warranty is assignable by Purchaser and any subsequent owner of the Products, provided that the Products remain installed at the original installation location, and provided that any subsequent owner agrees in writing to be bound by the terms of this IronRidge Limited Warranties and Disclaimer document and provides proof of purchase of the Products. Change in ownership of the Products or assignment of this Warranty will not cause the warranty periods provided herein to be reset. Any subsequent owners to whom this limited warranty is assigned shall be considered a subsequent Purchaser for purposes of this limited warranty during the period of ownership of the Products.

What does this Warranty cover?

This limited warranty provides that Products will be free of materials and manufacturing defects that materially impair the use of the Product for its designed purpose.

This Warranty excludes:

- a) any defect that has not been reported to IronRidge in writing (i) within the warranty periods set forth below and (ii) within ten (10) days after discovery of such defect;
- b) normal wear (including discoloration, rusting or corrosion of any pre-plated steel, or staining of any aluminum); cosmetic damage; damage resulting from negligence, accident, misuse, overloading, abuse, or improper installation (including failure to follow professional instruction and/or certification); the failure to comply with applicable laws including local building code limits; or damage from acts of God, war, criminal acts, explosions, fire, vandalism, or any other events of force majeure as may apply in accordance with applicable law;

- c) Products that have been altered, modified, or repaired without IronRidge's prior written authorization;
- d) damage to or caused by, or defects in, third party parts or materials not sold by IronRidge (irrespective of IronRidge documentation);
- e) any defect that arises as a result of any third party products, components, or materials used by the Purchaser in conjunction with the Product, which third party products or materials have not been provided for such use by or on behalf of IronRidge or the use of which has not been expressly authorized by IronRidge;
- f) Products installed, used, or maintained in a manner contrary to IronRidge documentation, including any defect that arises from the faulty handling, storage, assembly, loading, or installation of the Product, or any handling, storage, assembly, loading, or installation not in accordance with the instructions given by IronRidge, or any defect that arises from mounting the Product on a solar module, building, roof, or other construction that is unsuitable for the mounting of the Product;
- g) damage to the Products during shipment, storage, or installation;
- h) any defect that does not materially impair the use of the Product for the purpose for which it was designed, including without limitation non-structural accessories.

Further, the Finish Warranty (as defined below) shall not apply to surface oxidation or to any foreign residue deposited on a Product finish, or to Products installed in corrosive atmospheric conditions, and shall be void if the practices specified in AAMA 609 and 610-02, *Cleaning and Maintenance for Architecturally Finished Aluminum*, or ASTM 780/A780M-09, *Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings*, as applicable, are not followed.

What is the period of coverage?

This limited warranty shall commence on the date of shipment of the Products and last for a period of twenty-five (25) years (the "**Warranty Period**"). Notwithstanding the foregoing, the Warranty Period for accessories and electrical junction boxes shall be limited to a period of ten (10) years from the date of shipment. IronRidge further warrants that all Products with finishes will be free of visible defects, peeling, and cracking for a period of five (5) years from the date of shipment (the "**Finish Warranty**"); provided, however, that no Finish Warranty shall apply to mill aluminum, pre-plated steel, and/or polymeric Products. IronRidge may change the availability of this limited warranty at its discretion, but any changes will not be retroactive.

What are your remedies under this warranty?

With respect to any defective product during the Warranty Period, IronRidge will, in its sole discretion, either (a) repair or replace such Product (or defective part) free of charge or (b) refund the purchase price of the product. Such repair, replacement, or refund will not cause the Warranty Periods to be reset, will completely satisfy and discharge IronRidge's liability and obligation with respect to this

limited warranty, and will not create an expectation of warranty coverage beyond the Warranty Period. A refurbished Product may be used to repair or replace the defective components. Transportation, installation, labor, or any other costs or losses associated with failure of warranty compliance, or Product replacement or repair, are not covered by this limited warranty and are not reimbursable.

If IronRidge's warranty assessment reveals that a Product is not defective, IronRidge shall return the Product (if such Product was shipped to IronRidge for the assessment) and the Purchaser shall promptly reimburse IronRidge for all reasonable costs incurred by IronRidge in performing the assessment.

How do you obtain warranty service?

To report any defect or warranty claim or to obtain warranty services, Purchaser must call (800) 227-9523 ext. 1 or contact IronRidge at https://www.ironridge.com/company/contact_us/ during the Warranty Period.

IronRidge may request Purchaser to provide information reasonably known to the Purchaser in respect of the alleged defect or warranty claim, including, as appropriate, photographs or video recordings of the alleged defect. Purchaser shall provide IronRidge without undue delay with all additional information and cooperation (including access to facilities and premises) reasonably requested by IronRidge in respect of any warranty claim to enable IronRidge to assess each claim under this limited warranty.

LIMITATION OF LIABILITY

Except as set forth above, IronRidge sells the Products on an "AS IS" basis, which may not be free of errors or defects, and ALL EXPRESS OR IMPLIED REPRESENTATIONS AND WARRANTIES, INCLUDING ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, COURSE OF PERFORMANCE, OR TRADE PRACTICE, ARE HEREBY DISCLAIMED.

THE REMEDIES DESCRIBED ABOVE ARE PURCHASER'S SOLE AND EXCLUSIVE REMEDIES AND IRONRIDGE'S ENTIRE LIABILITY FOR ANY BREACH OF THIS LIMITED WARRANTY. IRONRIDGE'S LIABILITY SHALL UNDER NO CIRCUMSTANCES EXCEED THE ACTUAL AMOUNT PAID BY PURCHASER FOR THE DEFECTIVE PRODUCT, NOR SHALL IRONRIDGE UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT, INCLUDING WITHOUT LIMITATION, CLAIMS BY PURCHASER FOR DAMAGES SUFFERED BY PURCHASER'S CUSTOMERS OR CLAIMS OF THIRD PARTIES.

Force Majeure. IronRidge shall not be responsible for delays or failures in its performance resulting from acts or omissions beyond its reasonable control, whatever the source or cause.

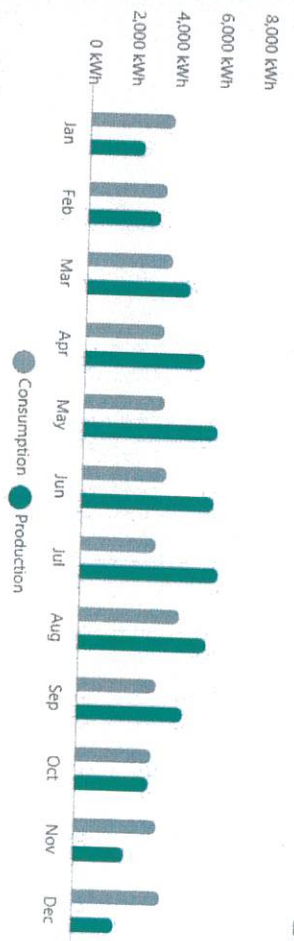


Production

Utility Bill Savings

ANNUAL PRODUCTION
103 Panels
52,275kWh Energy
117% Energy Offset

MONTHLY PRODUCTION (kWh)



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Advanced

AUTHORIZATION TO RELEASE INFORMATION

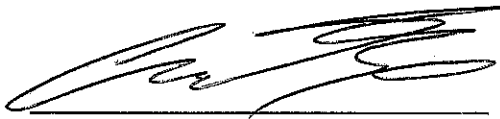
The undersigned hereby authorizes the Town of Barrington to obtain information regarding its performance on other contracts, agreements or other business arrangements, its business reputation, and any other matters pertinent to the evaluation and selection of a successful proposer in response to its Request for a Barrington Town Hall Municipal Photovoltaic Installation.

The undersigned hereby releases, acquits, and forever discharges the Town of Barrington, its Administrators, employees, governing Board members, and agents from any and all liability whatsoever, including all claims, demands and causes of action of every nature and kind affecting the undersigned that it may have or ever claim to have relating to information, data, opinions, and references obtained by the Town of Barrington in the evaluation and selection of a successful proposer in response to its Request for a Barrington Town Hall Municipal Photovoltaic Installation.

The undersigned hereby authorizes representatives of the Town of Barrington to contact any and all of the persons, entities, and references that are, directly or indirectly, listed submitted, or referenced in the undersigned's proposal submitted in response to its Request for a Barrington Town Hall Municipal Photovoltaic Installation.

The undersigned further authorizes any and all persons or entities to provide information, data, and opinions with regard to the undersigned's performance under any contract, agreement, or other business arrangement, the undersigned's ability to perform, the undersigned's business reputation, and any other matter pertinent to the evaluation of the undersigned. The undersigned hereby releases, acquits, and forever discharges any such person or entity, their officers, directors, employees and agents from any and all liability whatsoever, including all claims, demands and causes of action of every nature and kind affecting the undersigned that may have or ever claim to have relating to the evaluation and selection of a successful proposer in response to its Request for a Barrington Town Hall Municipal Photovoltaic Installation.

A photocopy of this signed Authorization is as valid as the original.



Signature

1/30/24

Date

Porter Electrical Contracting

Company

Chris Porter

Name

Master-electrician owner

Title



Barrington Town Hall Municipal

43.78KW PV Installation

Due ^{Thursday}~~Wednesday~~, February 1, 2024

Chris Porter

Porter Electrical Contracting

38 North Rd.

Deerfield, NH 03106

Chris@Porter-Electrical.com

Porter-electrical.com