

DEPARTMENT OF PLANNING AND ZONING PLANNER'S REPORT

DATE: June 5, 2019
TO: Tonya Hutson
FROM: Lynn Patterson

RE: Design Review – 3377 La Vista Drive

BACKGROUND

The City of Hapeville has received a Design Review Application from Tia Muse and Brooke Fortenberry for the addition of solar panels to the roof of the existing building at 3377 La Vista Drive.

The property is zoned R-1, One-Family Detached, and is subject to the Neighborhood Conservation Area, Subarea E, of the Architectural Design Standards.

CODE

- (e) Roof and chimney standards.
 - 1. Principal building roofs for one-family detached dwellings shall have a minimum usable life of thirty (30) years, per manufacturer's warranty.
 - 2. Roof shingles shall be slate, cedar, or asphalt.
 - 3. Roof tiles shall be clay, terra cotta or concrete.
 - 4. Metal roofs are:
 - Permitted on one-family and two-family detached dwellings if approved by the design review committee; and
 - b. Permitted on multifamily and townhouse dwellings only when screened from the adjacent street by a parapet wall.
 - 5. Gutters shall be copper, aluminum or galvanized steel.
 - 6. Downspouts shall match gutters in material and finish.
 - 7. Roof forms shall be based on architectural style.
 - 8. All roofs, excluding dormers, shall overhang a minimum of 12 inches beyond the facade.
 - 9. Dormers are permitted on all style homes (unless specified), but shall not be taller than the main roof to which they are attached.
 - 10. Chimneys exposed to the public view may not be faced in wood or cement based siding and may not be of an exposed metal or ceramic pipe. All chimneys shall be wrapped in a brick, stone or suitable masonry finish material.
 - 11. Chimneys on exterior building walls shall begin at grade.
 - Chimneys shall begin at grade and be faced with brick or stacked stone; extend chimneys between three and six feet above the roof line.

FINDINGS

The Architectural Design Standards do not provide guidance for the installation of roof-mounted solar panels. As solar panels are not directly allowed by the code, a Design Exception would be required.

CITY OF HAPEVILLE DESIGN REVIEW APPLICATION

SUBMITTAL	DATE: MGy 15, 2019
NOTE:	All applications must be typed or neatly printed. Applications or an authorized representative is required to personally appear at the Design Review Meeting to answer questions.
	The Design Review Committee meets the third Wednesday of each month. Every attempt will be made to place your application for review on the next month's agenda following the submittal of a completed application with supporting documents; however, that may not always be possible. The City reserves the right to schedule applications as deemed necessary.
Applicant: Tio	a Muse Brooke Forten berry Contact Number: 770-485-7438
Applicants Add	dress: 2931 Lewis St Ste 300 Kennesaw GA 30144
	s: tig, muse of Creative solarusa, Com_ Zoning Classification:
Address of Pro	oposed Work: 3377 La Vista Dr Hapeville GA 30354
	FORMATION MUST BE PROVIDED): 14 006600010233
Property Owne	er: Isaac Bear Contact Number: 404-862-1886
Project Desci	ar panels to rooftop
	Man Angles 2019
	Name: Alan Carrier Contact Number: 678-779-6248
	on: <u>Tia Muse</u> Contact Number: <u>770-485-7438</u>
property. I do haccurate, and I application and reserves that rig I further understfull. I hereby ac write the Englis voluntarily comp	pplication to the City of Hapeville, to the Design Review Committee for the above referenced hereby swear or affirm that the information provided here and above is true, complete and understand that any inaccuracies may be considered just cause for invalidation of this any action taken on this application. I understand that the City of Hapeville, Georgia, that to enforce any and all ordinances regardless of any action or approval on this application. It tand that it is my/our responsibility to conform with all of City of Hapeville's Ordinances in knowledge that all requirements of the City of Hapeville shall be adhered to. I can read and the language and/or this document has been read and explained to me and I have full and objected this application. I understand that it is a felony to make false statements or writings to ville, Georgia pursuant to O.C.G.A. 16-10-20 and I may be prosecuted for violation thereof.
LiaMu	S-6-19
Annlicante	Nonature Date

Project Class (check	one):	
Residential	Commercial	Mixed-Use Development
Project Type:		
New Commercial	Construction	Addition to Existing Commercial Building
Addition to Existi	ng Residential Structure	Accessory Structure
Site Plan, Gradin		ew Single Family Residential Construction
Total Square Footage of	proposed New Construction:	
Total Square Footage of	existing building:	
Estimated Cost of Const	ruction: \$14,535	
		existing structure:
(19) Hanwha Q.	-Cell Solar Panels	(data sheet provided) rters (data sheet provided)

NOTICE

Please be advised that the Community Service Department is here to assist all applicants regarding application procedures, meeting schedules and necessary deadlines. The Community Service Department does NOT make any final decisions for the Design Review Committee, Sign Committee, Planning Commission, Board of Appeals or rezoning request to Mayor and Council.

A complete application must be submitted before the Community Service Department will accept an application and forward the same to the appropriate entity.

Building inspections issued by the City of Hapeville are contracted out to State of Georgia Certified Inspectors. These inspectors make the final decisions regarding building, electrical, plumbing and HVAC work completed in the City of Hapeville. The Hapeville Fire Marshal conducts inspections issued through the Community Services Department as needed. Both the Certified Inspectors and Fire Marshal make the final decisions before Certificates of Occupancy's are issued.

Please be advised that the Community Service Department shall not be responsible for your purchasing materials, equipment, items, signs, etc... before you receive final approval by any entity whose approval is required.

I understand that it is a felony to make false statements or writings to the City of Hapeville, Georgia pursuant to O.C.G.A. 16-10-20 and I may be prosecuted for a violation thereof.

(Please Print & Initial)

application, I have received this notice and I read and write the English language or I have had someone read and explain this document to me.



DEPARTMENT OF PLANNING AND ZONING

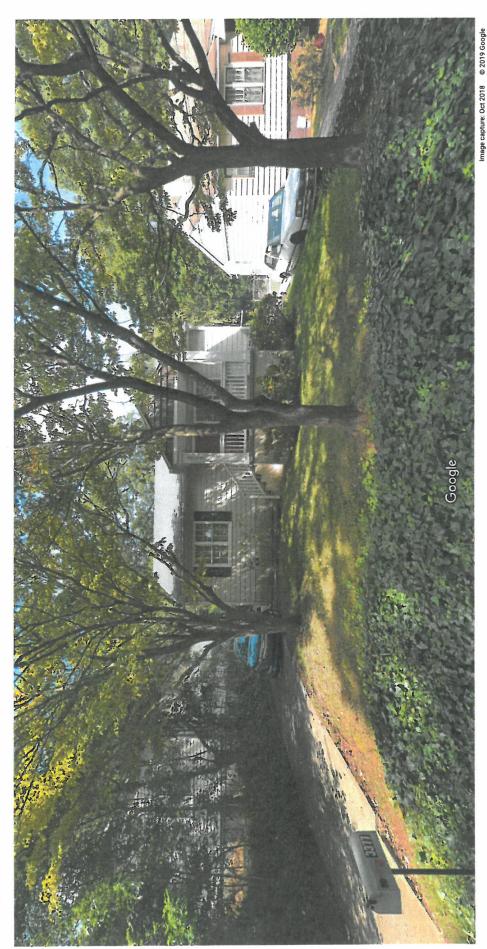
DESIGN REVIEW APPLICATION INSTRUCTIONS AND ACKNOWLEDGEMENT

I, the undersigned, agree that with my signature and submission to the City of Hapeville, I have done the following:
Read the City of Hapeville's Architectural Design Guidelines and relevant Code sections for my proposed project. The Architectural Design Guidelines may be found here: https://library.municode.com/ga/hapeville/codes/code of ordinances?nodeld=PTIICOOR CH81ARDEST
Ensured that my proposed project meets all of the required criteria per the City of Hapeville Code of Ordinances.
Submitted my application materials in full by the published deadline for review by Staff prior to the Design Review Committee meeting.
Identified and explained all deficiencies or components of the proposed project that do not meet with the requirements set forth in the Code. This explanation should be submitted as a separate document in the application.
Understood that any deficiencies in the application must be resolved at least 10 days prior to the Design Review Committee meeting or the application may not be presented to the DRC for review.
Submitted architectural drawings and details for all projects unless allowed in writing by the Community Services or Planning & Zoning Department.
Agreed to submit any required revisions by the Design Review Committee with updated drawings to the Community Services Department for review prior to requesting any permits.
Tia Muse Signature S-6-19 Printed Name Signature Date
Timited Name Signature

Should you have any questions, please do not hesitate to contact the Community Services Department at 404-669-2120.

Thank you for interest and investment in the City of Hapeville.

Google Maps 3377 La Vista Dr

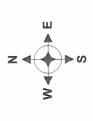


Hapeville, Georgia

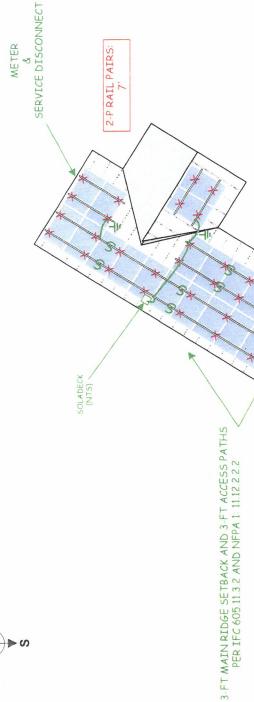
Google

Street View - Oct 2018

5/30/2019, 11:49 AM



5.7 KW ROOF-MOUNT SOLAR PV ARRAY



NOTES:

1 SHINGLE ROOF, ROOF DECKING IS 1X6 PLANK, 2X6 RAFTERS 22" O/C, CONVENTIONAL FRAMING; PITCH IS 6:12. PRE-MEASURE ALL AREAS TO CLEAR OBSTACLES AND ENSURE PROPER FIT, LEAVING SUFFICIENT ROOM FOR SETBACKS AND ACCESS PATHS.

0/0 243TERS

> 5-P RAIL PAIR: 10' + 7'

10-P RAIL PAIR: 14'+11'+8'6"

- 2 MARK AND ATTACH MOUNTS & RAILS ACCORDING TO LAYOUT & MOUNT AND RAIL PATTERNS. RAIL SPACING IS 33". MOUNTS ARE AT VARYING INTERVALS. MAXIMUM DISTANCE BETWEEN MOUNT AND RAIL-EDGE OR SPLICE IS 24". (MAX MOUNTING SPAN 7') (INNER 50% OF PANEL SHOULD BE BETWEEN RAILS.)
- 3 MOUNT ENPHASE **Q TRUNK CABLE AND IQ7 MICROINVERTERS**, NOTING STRING CONFIGURATION AND RECORDING MICROINVERTER S/N/S. INSTALL TERMINATORS AND UNUSED CONNECTOR CAPS. RUN ALL GROUNDS. USE LFMC AND 600V PV WIRE.
- INSTALL SOLADECK, VERIFYING POSITION IN ATTIC BEFORE PENETRATING ROOF, AND WIRE HOME RUNS. RUNS ARE 600V.
- 5 MOUNT & CONNECT PANELS CENTERED OVER RAILS, RECORDING PANEL S/N'S. RAIL OVERHANGS ARE APROX. 2-3" PAST PANELS. CONNECT ALL JUMPERS, MANAGE WIRES, SEPARATION DISTANCE BETWEEN ADJACENT PANELS \$-15"

	ABMA WASOL	CERT	SWAY	ACTITIO.
	CK'D			
	ВУ	RE6		
REVISIONS	DESCRIPTION	PROPOSAL v1		
	DATE	05/13/19		





മഥ	00 x0		
8 4	4.8		Z
മന			TI DI
8 2		AA	STRING CONFIGURATION (NTS)
8 4		11 12	NFIG (NTS)
٧	∀ 0		N Z
K 57	40		99
4 m	₹ 60		TRI
44	4 N		S
< r∪	₹ •0		

SATED WITH THE FOLLOWING MINIMUMS MET:

- *BUILDING MEAN ROOF HEIGHT <= 30 FT
 *RAFTER SPACING 24" MAX
 *RISK CATEGORY II
 *WIND EXPOSIBE B
 *WIND SPEED <= 110 MPH
 *GROUND SNOW LOAD <= 15 PSF
 ARRAY DISTRIBUTED WEIGHT <+ 4.0 PSF
 AND <= 35 LBS PER ATTACHMENT
 *MAX GAP BENEATH MODULE FRAME <= 7"
 *MAX GAP BENEATH MODULE FRAME <= 7"
 *WAT SAP BENEATH MODULE FRAME <= 7"
 *WAT SAP BENEATH MODULE FRAME <= 7"
 *VPILFT, DOWN FORCE, AND SHEAR FORCE OF
 167 LB, 258 LB, AND 135 LB RESPECTIVELY



OVERHEAD MOCK-UP (NTS)

Creative Solar USA, Inc.

Kennesaw, 6a 30144 Russell Seifert: 770-378-9668 www.creativesolarusa.com 2931 Lewis Street

REG	ENG/DRA:	05-13-2019	DATE:	1 OF 1	PAGE:	
		SCALE: 1" = 12' (OUTPUT: 8.5 X 11 LANDSCAPE)	PUT: 8.5 X	1" = 12' (OUT	SCALE:	
	54	ADDRESS: 3377 LA VISTA DR, HAPEVILLE, GA 30354	TA DR, HA	3377 LA VIS	ADDRESS:	
				CUSTOMER: ISAAC BEAR	CUSTOMER:	
		TITLE: 5.7 KW ROOF-MOUNT SOLAR PV ARRAY	F-MOUNT	5.7 KW ROOI	TITLE:	

(4) - #10 XHHW, (1) - #8 XHHW GND #8 4-WIRE REG EXISTING GRID **DESCRIPTION** #12 Q CABLE (ENPHASE) Creative Solar USA, Inc. ENG/DRA: CONDUIT AND WIRE SCHEDULE 5.7 KW DC PV ARRAY - SINGLE-LINE ELECTRICAL 2931 Lewis Street Kennesaw, 6a 30144 Russell Seifert: 770-378-9668 www.creativesolarusa.com 3377 LA VISTA DR, HAPEVILLE, GA 30354 **EXISTING EXISTING** VTILITU METER 05-13-2019 OR LOAD-SIDE TAP AT METER BREAKER ADD (1) 2P 30A CIRCUIT BREAKER CONDUIT DATE: **EXISTING** 120/240V N/A IMC ISAAC BEAR (m) 1 OF 1 NON # OF RUN m2 8# AC DISCONNECT 3R FUSIBLE BLADED 60A 240V, 1-PH ADDRESS: SCALE: CUSTOMER: PV UTILITY PAGE: (9) CKD COMBINED MAX CONTINUOUS AC OUTPUT CURRENT AT (2) 2P 20A CIRCUIT BREAKERS 4. COMBINER BOX WITH IQ ENVOY REG 8 240V OF 19A. 5.7 KW DC PV ARRAY - SINGLE-LINE ELECTRICAL 4 REVISIONS DESCRIPTION PROPOSAL v1 (7) **BRANCH #2** (1) AC BRANCH CIRCUIT JUNCTION BOX /SOLADECK BRANCH #1 3. TRANSITION BOX 05/13/19 DATE NOITISNA91 XO8 $^{\circ}$ MICROTIVERTERS. ROOF-MOUNTED, UNDER EACH PANEL. MAX CONTINUOUS AC OUTPUT POWER 240VA NOMINAL AC OUTPUT CURRENT AT 240V SINGLE PHASE OF 1.0A. (2) BRANCHES AT (12 & 7) INVERTERS FER STRING, CONNECTED IN SERIES. (MAX I6 UNITS FER ZOR BRANCH, 240VAC). (2) STRINGS IN PRABLLEL. MAX CONT AC OUTPUT POWER 4,560 VA TOTAL. MAX CONTINUOUS AC OUTPUT CURRENT AT 240V OF EACH PROTECTED AT 20A. NEC 2014 & 2017 SECTION 690.12 COMPLIANT #12, 1000V (-PER NEC 690.43 PANELS ARE GROUNDED TO STRUCTURE VIA WEEB GROUNDING CLIPS OR BONDING CLAMPS 7A PER 7-INVERTER BRANCH, 12A PER 12-INVERTER BRANCH, (19) ENPHASE IQ7-60-2-US UL1741/IEEE1547 2. INVERTERS -Q CABLE Q CABLE (12 AWG) BLACK-L1 RED-L2 2 <u>₽</u> 2 12 12 EQUIPMENT GROUND TO STRUCTURE VIA WEEBS OR EQUIVALENT TERMINATOR CAP INSTALLED ON END OF CABLE SHORT CIRCUIT CURRENT 9.72A. EACH WIRED TO INDIVIDUAL INVERTERS. 5,700 WATTS TOTAL. UL1703 (19) JINKO SOLAR EAGLE PERC 60 JKM300M-60, 300W PV PANELS 60-CELL, MOND-CRYSTALLINE. ROOF-MOUNTED. 1. PV ARRAY SOURCE CIRCUIT



Eagle PERC 60 280-300 Watt

MONO CRYSTALLINE MODULE

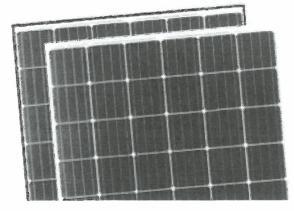
Positive power tolerance of 0~+3%

ISO9001:2008-ISO14001:2004-OHSAS18001

IEC61215-IEC61730 certified products.







KEY FEATURES

4 Busbar Solar Cell:

 purbar rolar coll adoptit new technology to improve the left clandy of manufes offer a better aesthete appearance making I perfect for metter installation.



High Efficiency:

righer madure convenion efficier cyrup to 18 33° . I benefit from Paul visted Ammiter Boar Contact (PSPC), technology,



PID RESISTANT:

united bower degradation of Engle module caused by PiD effect is quaranteed under strict testing condition (55% 1789 APP). Penals from mass production



low-light Performance:

Advanced glass and solar delimitace texturng allow for excellent performance in low light environment



Severe Weather Resilience:

Cartitled to withstaurd wind load (2400 Parcal) and show load (5400 Parcal)



Durability against extreme environmental conditions:

eignigal mist and ammenia resistance coditled by TUV NORD







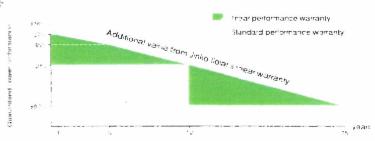




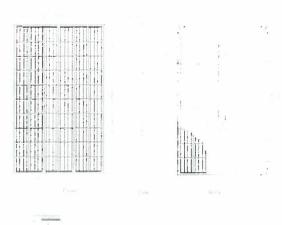


LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty . 25 Year Linear Power Warranty

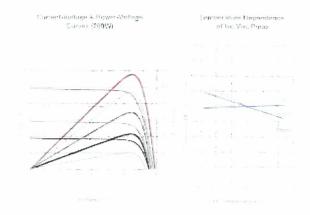


Engineering Drawings



Packaging Configuration

Electrical Performance & Temperature Dependenc



Mechanical	Characteristics
e Type	Mone crystalline PERC 156 - 156 mm to inche
No of cells	60 (6×10)
Distance	teste in a sillarer segni z sitte vitin segn
Weight	19.0 kg (41.9 lbs)
	Fight 11 second on the first temperations
Frame	Anodized Aluminium Alloy
g men en Han.	1997 The general

Output Cables, 1039 1 > 4 Omm' Length, 900mm or Customized Length

SPECIFICATIONS

Module Type	JRM (SOPER)	#CM2850-60	KM200M-00	JKM295A1-00	JRM300M-80
	STE NOCT	STC NOCT	STE NOCT	STC NOCE	STC NOCT
Maximum Hower Primary	SECURE SCHOOL	(REW) 21 (W)		295Wb 220Wp	200Wn 224Wn
Maximum Power Voltage (Vmp)	31 8V 29 7V	32 6W 39 9V	32.2V 30.2V	32.4V 30.4V	32.6V 30 6V
Maxim to Power Correct timp?	881A 701A		9,70A 115A	9,18A 7,24A	9.21A 7.32A
Open-circuit Voltage (Voc)	38.6V 36.2V	38.7V 36.4V	39 5V 36 6V	39.77 36.8V	40.1V 37.0V
Short elever Corrent (Isc)	9.496 7.625	93-14 3.754	11.50	9.61A 1.89A	9,72A M.01A
Module Efficiency STC (%)	17.11%	17.41%	17.72%	18.02%	18 33%
Operating femperature! C.			410 to 415 to		
Maximum system voltage			1000VDG (IEC.)		
Maximum series have rating					
Power tolerance			0-+3%		
Penoprature coefficients of Empo					
Temperature coefficients of Voc					
Tereperature coefficients of ki					
Nominal operating cell temperature. NOCT			45127		













Wind Speed Imys

[•] Proper measurement trilerance: ± 4%

Enphase IQ 7 and IQ 7+ Microinverters

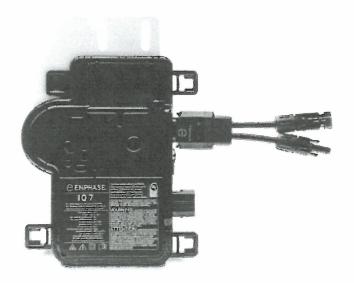
The high-powered smart grid-ready

Enphase IQ 7 Micro** and Enphase IQ 7+ Micro**

dramatically simplify the installation process while achieving the highest system efficiency.

Part of the Enchase IQ System, the IQ 7 and IQ 7+ Microinverters integrate with the Enchase 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 intoroved, lighter two wire sabling.
- Built mirapid shutdown compliant (NEC 2014 & 2017).

Productive and Reliable

- Optimized for high powered 60 cell and 72 qga* modules.
- More than a million hours of testing.
- · Class II double-insulated enclosure
- Ul listen

Smart Grid Ready

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

as it; in Micro is required to support it? cell magules.





Enphase IQ 7 and IQ 7+ Microinverters

INPUT DATA (DC)	107-60-2-US	1Q7-50-B-US	107PLUS-72-2	-US / 107PLUS-72-B-US	
Commonly used module pairings:	235 W - 350 W -	÷	235 W - 440 W	*	
Module compatibility	60 cell PV mod	ules 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 (podule (sc)	15 A		15 A		
Overvoltage class DC port			11		
DC port backfeed current	0 A		OA		
PV array configuration		ed array. No additio ron requires max 20			
OUTPUT DATA (AC)	10.7 Microinv	Talkin sprakensi kanasa kenasa kenasa kenasa kanasa basa	10.7+ Microin		
Peak output power	250 VA		295 VA		
Maximum egatious output power .	240 VA		290 VA		
Nominal (L-L) voltage/range ²	240 V / 211-254 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)	121 A (240 V)	1 39 A (208 V)	
Nominal frequency	60 Hz		60 Hz	,	
Extended frequency range	47-68 Hr		47 - 68 Hz		
AC short circuit fault current over 3 cycles	5 8 Arms		5.8 Arms		
Maximum unds per 20 A (I-I) branch circuit	16 (240 VAC)	13 (208 VAC)	13 (240 VAC)	11 1208 VAC:	
Overvoltage class AC port	111	100 (4 100) (4 100)	111		
AC port backfeed current	0 A		0.4		
Power factor setting	1.0		10		
Power factor (adjustable)	0.85 leading	O RS lagging		0.85 lagging	
EFFICIENCY	@246 V	@208 V	@240 V	@208 V	
Peak efficiency	976%	976%	975%	973%	
CEC weighted afficiency	970%	970 %	97.0 %	970%	
MECHANICAL DATA					
	-40°C to +65°C				
Ambient temperature range	43 to 100% (co				
Refative humidity range Connector type (107-60-2-US & 107PLUS-72-2-US)			Uldianal O.DCC.5	adapter)	
Connector type (kg/ 60-2-03 & 10/FE03-72-2-03) Connector type (kg/-60-8-05 & 10/FE03-72-8-05)			tenential dinee as	suspiter)	
оль чиносон түрге энд хэтий тээссэг хэгд хэг соогоох хангосон	Adaptors for mi PV2 to MC4 o	odules with MC4 or rder EGA-S20-S22 (der EGA-S20-S25	UTX connectors.		
Dimensions (WxHxD)	212 mm x 175 n	nm x 30.2 mm (with	nout bracket)		
Weight	1 08 kg (2 38 lb	6)			
Cooking	Natural convect	ion - No fans			
Approved for wet locations	Ves				
Pallution degree	PD3				
		insulated carresies	n repletant acluma	rio anologura	
Enclosure		insulated corrosio	o research fanding	ens ensighale	
Environmental category / UV exposure rating	NEMA Type 6 - outdoor				
FEATURES	Demonstra				
Communication		nmunication (PLC)			
Monitoring	Both options re	ger and MyEnlights guire installation of	f an Enphase IQ En	voy.	
Disconnecting means	disconnect requ	urred by NEC 690	een evaluated and	approved by UL for use as the load-break	
Compliance	CAN/CSA-C22	1741/IEEE1547, FOC 2 NO. 107/1-01		•	
This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC 2017 section 690.12 and C22 1-2015 Rule 64 218 Rapid Shutdown of PV Systand DC conductors, when installed according manufacturer's instructions.					

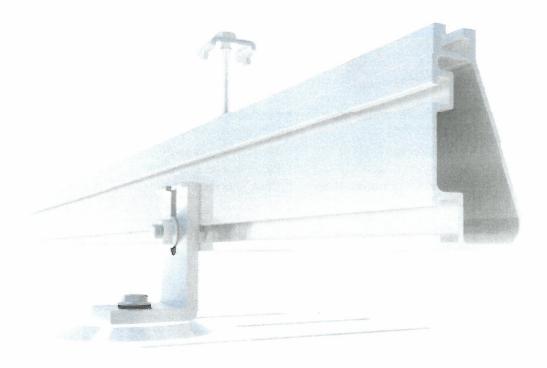
^{1.} No enforced by "Afficians. See the compatibility calculator at https://enphase.com/en-us/support/module-compatibility
2. Normal voltage tongs can be extended beyond normal if required by the stillty
3. Limits may vary Before local requirements to define the number of microim-orien per stanch in your area.







Roof Mount System



Built for solar's toughest roofs.

IronRidge builds the strongest roof mounting system in solar. Every component has been tested to the limit and proven in extreme environments.

Our rigorous approach has led to unique structural features, such as curved rails and reinforced flashings, and is also why our products are fully certified, code compliant and backed by a 20-year warranty.



Strength Tested

All components evaluated for superior structural performance.



PE Certified

Pre-stamped engineering letters available in most states.



Class A Fire Rating

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



Design Software

Online tool generates a complete bill of materials in minutes.



Integrated Grounding

UL 2703 system eliminates separate module grounding components.



20 Year Warranty

Twice the protection offered by competitors.

XR Rails

XR10 Rail



A low-profile mounting rail for regions with light snow.

- · 6' spanning capability
- · Moderate load capability
- · Clear & black anod, finish

XR100 Rail



The ultimate residential solar mounting rail.

- 8' spanning capability
- · Heavy load capability
- · Clear & black anod, finish

XR1000 Rail



A heavyweight mounting rail for commercial projects.

- · 12' spanning capability
- · Extreme load capability
- · Clear anodized finish

Internal Splices



All rails use internal splices for seamless connections.

- · Self-tapping screws
- · Varying versions for rails
- Grounding Straps offered

Attachments

FlashFoot



Anchor, flash, and mount with all-in-one attachments.

- · Ships with all hardware
- · IBC & IRC compliant
- · Certified with XR Rails

Slotted L-Feet



Drop-in design for rapid rail attachment.

- · High-friction serrated face
- · Heavy-duty profile shape
- · Clear & black anod, finish

Standoffs



Raise flush or tilted systems to various heights.

- · Works with vent flashing
- · Ships pre-assembled
- · 4" and 7" Lengths

Tilt Legs



Tilt assembly to desired angle, up to 45 degrees.

- · Attaches directly to rail
- · Ships with all hardware
- · Fixed and adjustable

Clamps & Grounding

End Clamps



Slide in clamps and secure modules at ends of rails.

- · Mill finish & black anod.
- Sizes from 1.22" to 2.3"
- · Optional Under Clamps

Grounding Mid Clamps 💮



Attach and ground modules in the middle of the rail.

- Parallel bonding T-bolt
- Reusable up to 10 times
- · Mill & black stainless

T-Bolt Grounding Lugs



Ground system using the rail's top slot.

- Easy top-slot mounting
- Eliminates pre-drilling
- · Swivels in any direction

Accessories



Provide a finished and organized look for rails.

- · Snap-in Wire Clips
- · Perfected End Caps
- · UV-protected polymer

Free Resources



Design Assistant

Go from rough layout to fully engineered system. For free.

Go to IronRidge.com/rm



NABCEP Certified Training

Earn free continuing education credits, while learning more about our systems.

Go to IronRidge.com/training