

## Your System

Your system is designed to save you money by offsetting your power consumption from your utility company. See how your system will produce power below.

**11.480 kW**

System size

**15,762 kWh**

Year 1 system production

**14,280 kWh**

Annual usage

**28 X SOLAREVER USA  
SE-182\*91-410M  
-108N**

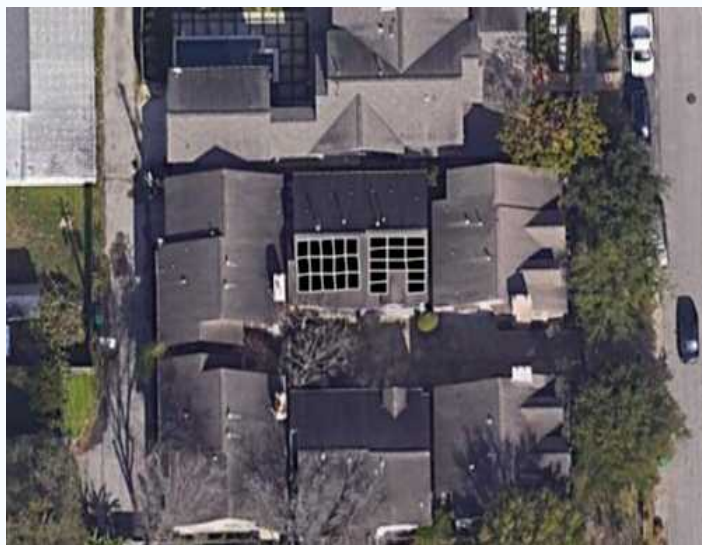
Panels

**SOL-ARK**

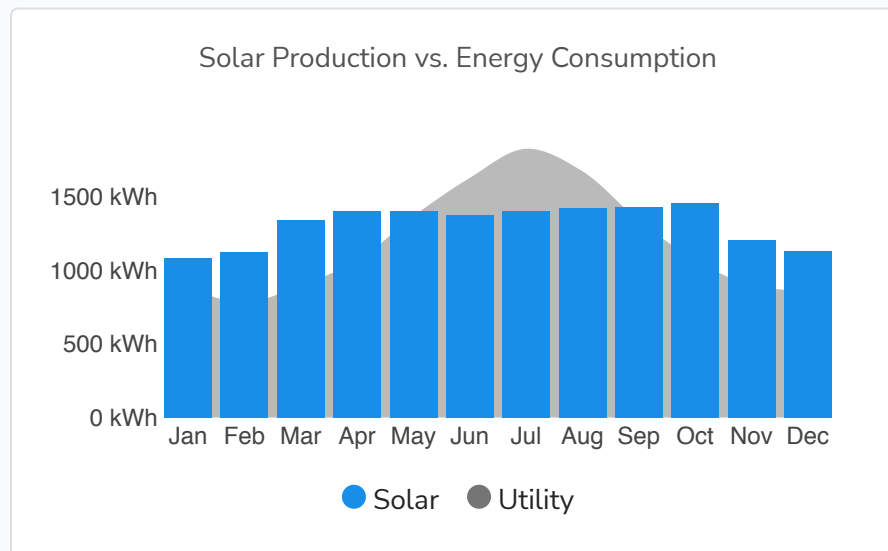
Inverters

**110%**

Offset



527 Oxford St Houston, TX 77007



\*Savings and system production will vary based on final design, utility rates, and household energy usage. The actual savings vary based on a number of factors, including weather, shading from growing trees, damage to system components, your future electricity use, and the fluctuation of the price of electricity in your utility district.



**LIMITLESS**

**15K**

**Spec Sheet**



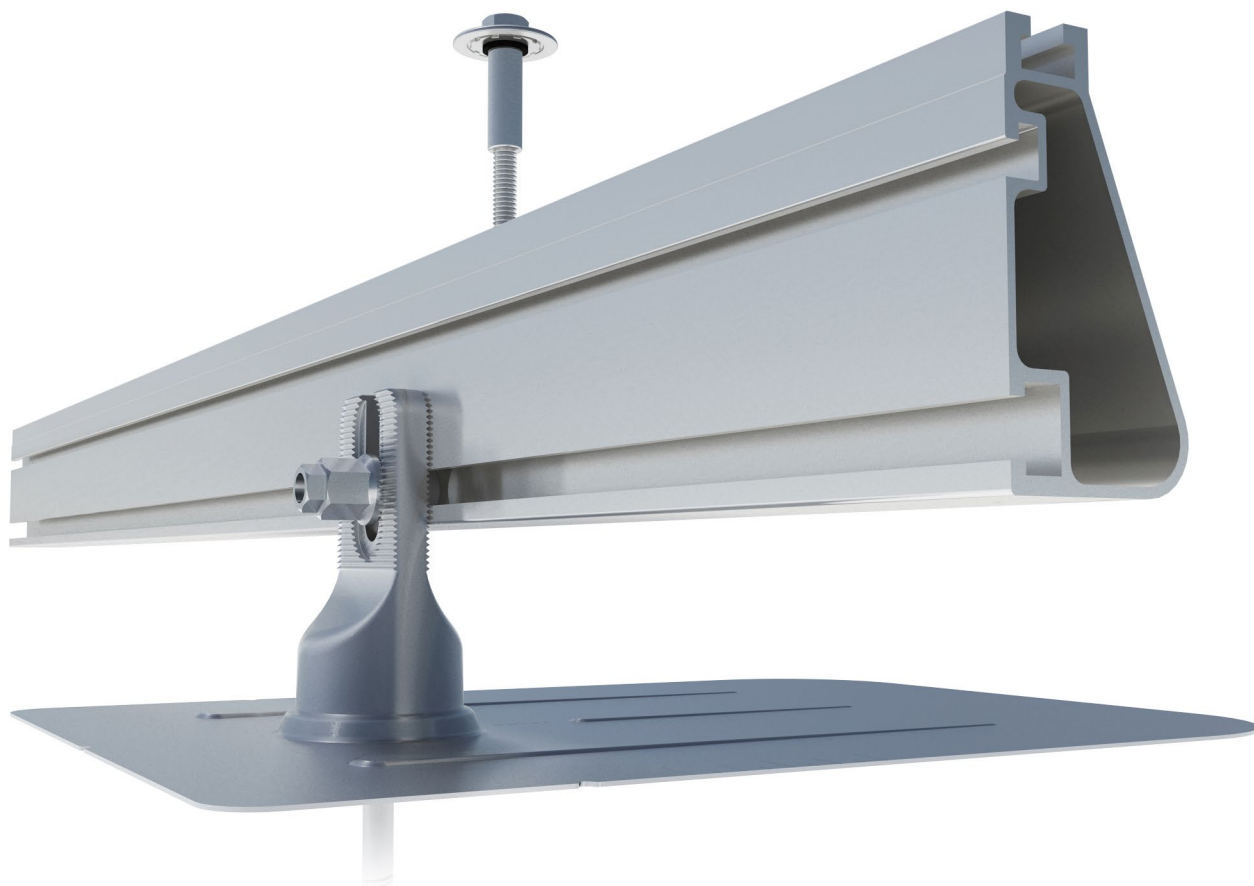
<b>Battery (optional) Output Power 12000W</b>	
Type	Lead-Acid or Li-Ion
Nominal DC Input	48V
Capacity	50 — 9900Ah
Voltage Range	43.0 — 63.0V
Continuous Battery Charging Output	275A
Charging Curve	3-Stage w/ Equalization
Grid to Batt Charging Efficiency	96.0%
External Temperature Sensor	Included
Current Shunt for Accurate % SOC	Integrated
External Gen Start Based on Voltage or %SOC	Integrated
Communication to Lithium Battery	CanBus & RS485

<b>Solar Input Power 17000W</b>	
Max Allowed PV Power	17000W
Max PV Power Delivered to Battery & AC Outputs	16000W
Max DC Voltage (Voc)	500V @ 26A
MPPT Voltage Range	125-425V
Starting Voltage	125V
Number of MPPT	3
Max Solar Strings Per MPPT	2
Max DC Current per MPPT (Self Limiting)	26A
Max AC Coupled Input (Micro/String Inverters)	19200W

<b>General</b>	
Dimensions (H x W x D)	31.8" x 18.3" x 10.9"
Weight (Install)	85 lbs
Enclosure	IP65 / NEMA 3R
Ambient Temperature	-40~60°C, >45°C Derating
Installation Style	Wall-Mounted
Wi-Fi & LAN Communication	Included
Standard Warranty (verified by HALT Testing)	10 Years

<b>AC Output Power 15kW On-Grid &amp; Off-Grid</b>	
Connections	120/240/208V Split Phase
Continuous AC Power to Grid (On-Grid)	15000W 62.5A-L (240V)
Continuous AC Power to Load (Off-Grid)	12000W 50A-L (240V)
Surge AC Power 10sec	24,000VA L-L (240V)
Surge AC Power 100ms	30,000VA L-L (240V)
Parallel Stacking	Yes - Up to 12
Frequency	60/50Hz
Continuous AC Power with Grid or Generator	48000W 200A L-L (240V) 24000W 200A L-L (120V)
CEC Efficiency	96.5% (Peak 97.5%)
Idle Consumption Typical—No Load	90W
Sell Back Power Modes	Limited to Household/Fully Grid-Tied
Design (DC to AC)	Transformerless DC
Response Time (Grid-Tied to Off-Grid)	5ms
Power Factor	+/- 0.9 - 1.0

<b>Protections &amp; Certifications</b>	
Electronics Certified Safety by SGS Labs to NEC & UL Specs - NEC 690.4B & NEC 705.4/6	Yes
Grid Sell Back — UL1741-2010/2018, IEE-E1547a-2003/2014, FCC 15 Class B, UL1741SA,	Yes
PV DC Disconnect Switch — NEC 240.15	Integrated
Ground Fault Detection — NEC 690.5	Integrated
PV Rapid Shutdown Control — NEC 690.12	Integrated
PV Arc Fault Detection — NEC 690.11	Integrated
PV Input Lightning Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
AC Output Breakers - 200A	Integrated
200A x 2 Battery Breaker / Disconnect	Integrated
Surge Protection	DC Type II / AC Type II



### Built for solar's toughest roofs.

IronRidge builds the strongest mounting system for pitched roofs in solar. Our components have been tested to the limit and proven in extreme environments, including Florida's high-velocity hurricane zones.

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 25-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 Assistant**

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



#### **UL 2703 Listed System**

Entire system and components meet newest effective UL 2703 standard.



#### **25-Year Warranty**

Products guaranteed to be free of impairing defects.

**XR Rails** ☺

**XR10 Rail**



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

- 6' spanning capability
- Moderate load capability
- Clear and black finish

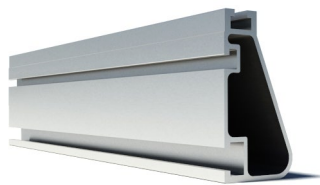
**XR100 Rail**



The ultimate residential solar mounting rail.

- 8' spanning capability
- Heavy load capability
- Clear and black finish

**XR1000 Rail**



A heavyweight mounting rail for commercial projects.

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

**BOSS™ Bonded Splices**



Bonded Structural Splices connect XR Rails together.

- Integrated bonding
- No tools or hardware
- Self-centering stop tab

**Clamps & Grounding** ☺

**UFO™**



Universal Fastening Objects bond modules to rails.

- Fully assembled & lubed
- Single, universal size
- Clear and black finish

**Stopper Sleeves**



Snap onto the UFO to turn into a bonded end clamp.

- Bonds modules to rails
- Sized to match modules
- Clear and black finish

**CAMO™**



Bond modules to rails while staying completely hidden.

- Universal end-cam clamp
- Tool-less installation
- Fully assembled

**Bonding Hardware**



Bond and attach XR Rails to roof attachments.

- T & Square Bolt options
- Nut uses 7/16" socket
- Assembled and lubricated

**Attachments** ☺

**FlashFoot2™**



Flash and mount XR Rails with superior waterproofing.

- Twist-on Cap eases install
- Wind-driven rain tested
- Mill and black finish

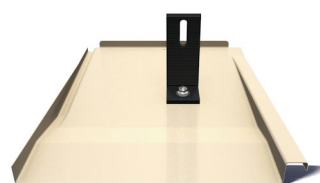
**FlashVue™**



Flash and mount conduit, strut, or junction boxes.

- Twist-on Cap eases install
- Wind-driven rain tested
- Secures 3/4" or 1" conduit

**Knockout Tile**



Replace tiles and ensure superior waterproofing.

- Flat, S, & W tile profiles
- Form-fit compression seal
- Single-lag universal base

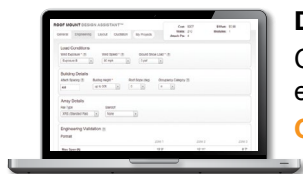
**All Tile Hook**



Mount on tile roofs with a simple, adjustable hook.

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

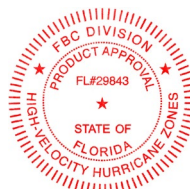
**Resources**



**Design Assistant**

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

[Go to IronRidge.com/design](http://IronRidge.com/design)



**Endorsed by FL Building Commission**

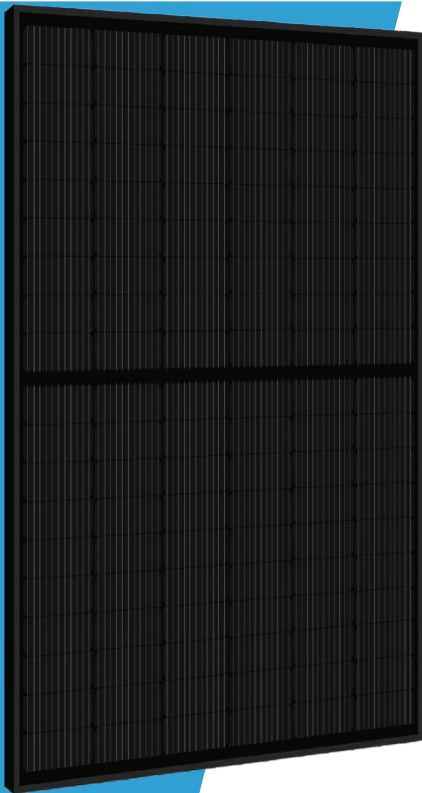
Flush Mount is the first mounting system to receive Florida Product approval for 2017 Florida Building Code compliance.

[Learn More at bit.ly/floridacert](http://bit.ly/floridacert)

# Module HC 108M

## 400-410 Watt

Positive power tolerance of 0~+3%  
**HALF CELL - MONO PERC 108 CELL**



### KEY FEATURES



#### Multi Busbar Solar Cell

Multi busbar solar cell adopts new technology to improve the efficiency of modules, offers a better aesthetic appearance, making it perfect for rooftop installation.



#### High Efficiency

Higher module conversion efficiency (up to 20.38%) benefit from half cell structure (low resistance characteristic).



#### PID Resistance

Excellent Anti-PID performance guarantee limited power degradation for mass production.



#### Low-light Performance

Advanced glass and cell surface textured design ensure excellent performance in low-light environment.



#### Severe Weather Resilience

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

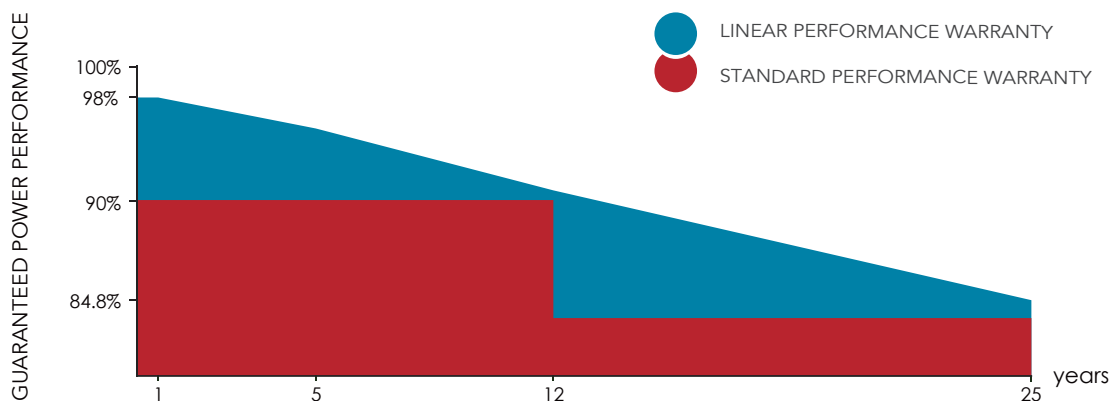


#### Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.

### LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty    25 Year Linear Power Warranty

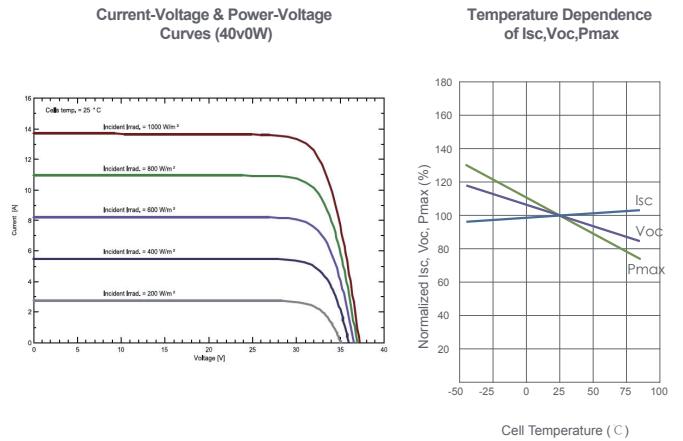
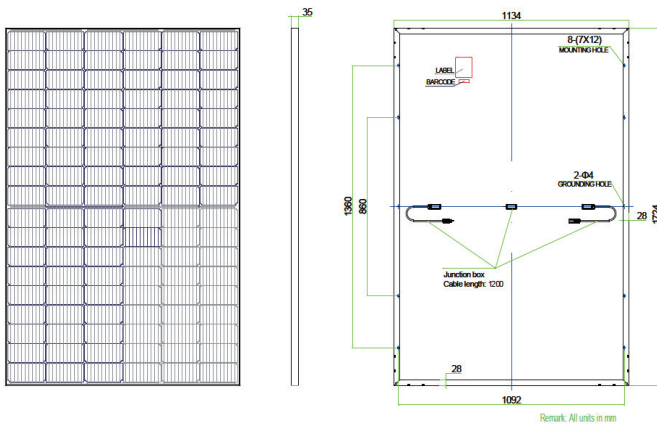


ISO9001:2015 certified factory

UL61730 certified product

# ENGINEERING DRAWINGS

# ELECTRICAL PERFORMANCE & TEMPERATURE DEPENDENCE



## PACKAGING CONFIGURATION

(Two pallets = One stack)

31pcs/pallet , 62pcs/stack, 868pcs/53FT Truck

## MECHANICAL CHARACTERISTICS

Cell Type	Mono PERC 182x91mm
No. of Half-cells	108 (6x18)
Dimensions	1724x1134x35mm (67.87x44.64x1.37 inch)
Weight	21.5 kg (47.4 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated, connector compatible with MC4
Output Cables	TÜV 1x4.0mm <sup>2</sup> 450mm, (-) 1200mm or Customized Length
Fire rating	UL: Type 1, IEC: Class C
Maximum static load	5400Pa(front side), 2400Pa(back side)

## SPECIFICATIONS

Module Type	SE-182*91-400M-108N		SE-182*91-405M-108N		SE-182*91-410M-108N	
	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	400W	300W	405W	304W	410W	308W
Maximum Power Voltage (Vmp)	31.06	28.90	31.21	29.04	31.35	29.20
Maximum Power Current (Imp)	12.88	10.39	12.98	10.47	13.08	10.55
Open-circuit Voltage (Voc)	36.83	35.01	36.98	35.16	37.12	35.29
Short-circuit Current (Isc)	13.76	11.09	13.86	11.18	13.96	11.26
Module Efficiency STC (%)	20.46%		20.72%		20.97%	
Operating Temperature (°C)	-40°C ~ +85°C					
Maximum System Voltage	1500V DC (IEC)					
Maximum Series Fuse Rating	20A					
Power Tolerance	0~+3%					
Temperature Coefficients of Pmax	-0.35%/°C					
Temperature Coefficients of Voc	-0.29%/°C					
Temperature Coefficients of Isc	0.048%/°C					
Nominal Operating Cell Temperature (NOCT)	45±2°C					

**STC:** ☀ Irradiance 1000W/m<sup>2</sup> 🌡 Cell Temperature 25°C ☁ AM=1.5

**NOCT:** ☀ Irradiance 800W/m<sup>2</sup> 🌡 Ambient Temperature 20°C ☁ AM=1.5 🌬 Wind Speed 1m/s

\* Power measurement tolerance: ± 3%

Contact us!

Become the best solar company for the world +1(956) 308 3075 contact@solareverusa.com

# Thanks for your order

Your order is being packed and processed! Please take a moment to look over this confirmation and make any edits or cancellations immediately with our customer service specialists at [\(903\) 441-2090](tel:9034412090). Once your order has been assigned a tracking number, updates, additions, and cancellations are no longer available.

## Order #37285



**(Pre-Assembled) EG4 Enclosed Battery Rack | 6 Slot | Wheels Included**

1511051

\$549.00 USD

Qty: 1

**\$549.00 USD**



**EG4-LifePower4 Lithium Battery | 48V 100AH | Server Rack Battery (PRE-ORDER)**

1511006

\$1,449.00 USD

Qty: 6

**\$8,694.00 USD**



**84in 1 AWG Battery to Inverter Cables | Black and Red**

1554017

\$69.99 USD

Qty: 1

**\$69.99 USD**



**EG4-LifePower4 Read/Write Cable**

1565404

\$0.00 USD

Qty: 1

**\$0.00 USD**

Subtotal: **\$9,312.99 USD**

Discount: **-\$109.80 USD**

Shipping: **\$293.70 USD**

Tax: **\$783.49 USD**

Grand Total: **\$10,280.38 USD**

Payment method: **Credit Card**

Shipping method: **Freight Standard Service for \$293.70 USD**

## Shipping address

Mark Antill  
527 OXFORD ST  
UNIT C  
HOUSTON, TEXAS 77007  
UNITED STATES  
7134175454

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## Solar System Installation Agreement

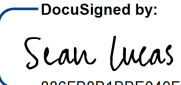
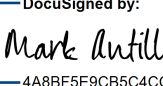
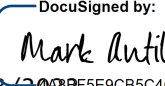
### IntegrateSun, LLC

5821 Southwest Fwy Ste #320

Houston, TX 77057

hello@integratesun.com

Homeowner ("Customer")	
Homeowner Name: Mark Antill	Co-Homeowner Name: Mark Antill
Phone: (713) 417-5454	Phone: (713) 417-5454
<b>Installation Address</b> 527 Oxford Street, Houston, TX, 77007 <b>("Property"):</b>	
Total Installed System Price ("Contract Price")	\$32,500
30% Upon signing the agreement	\$9,750
50% Upon Permit approvals	\$16,250
20% Upon System Installation	\$6,500
Description of the System to be Installed ("System")	
Solar Panels: Solarever USA Inverter: Solar Ark-15 KW System Size: 11.48 KW Racking : IronRidge Monitoring: Sol-Ark -Wi-Fi Dongle	<b>Additional Components   Allowances   Notes   Variances</b> 25 Years Workmanship Warranty 25 Year Manufacturer warranty of Racking 10 Year Manufacturer warranty of Solar Inverter 25 Year Manufacturer warranty of Solar Panels 5 Year Roof Penetration warranty Estimated Production: 15,700 KWh

Signatures		
Company	Homeowner	Co-Homeowner
Title: Sales Executive  Name: Sean Lucas Signature:  <small>DocuSigned by: Sean Lucas</small> <small>886FB8B1BBE040F...</small> Date: 8/23/2022	Name: Mark Antill Signature:  <small>DocuSigned by: Mark Antill</small> <small>4A8BF5E9CB5C4CC...</small> Date: 8/23/2022	Name: Mark Antill Signature:  <small>DocuSigned by: Mark Antill</small> <small>4A8BF5E9CB5C4CC...</small> Date: 8/23/2022

- The customer will receive a completed and signed copy (signatures of company and customer) of this agreement via email before any work is started.