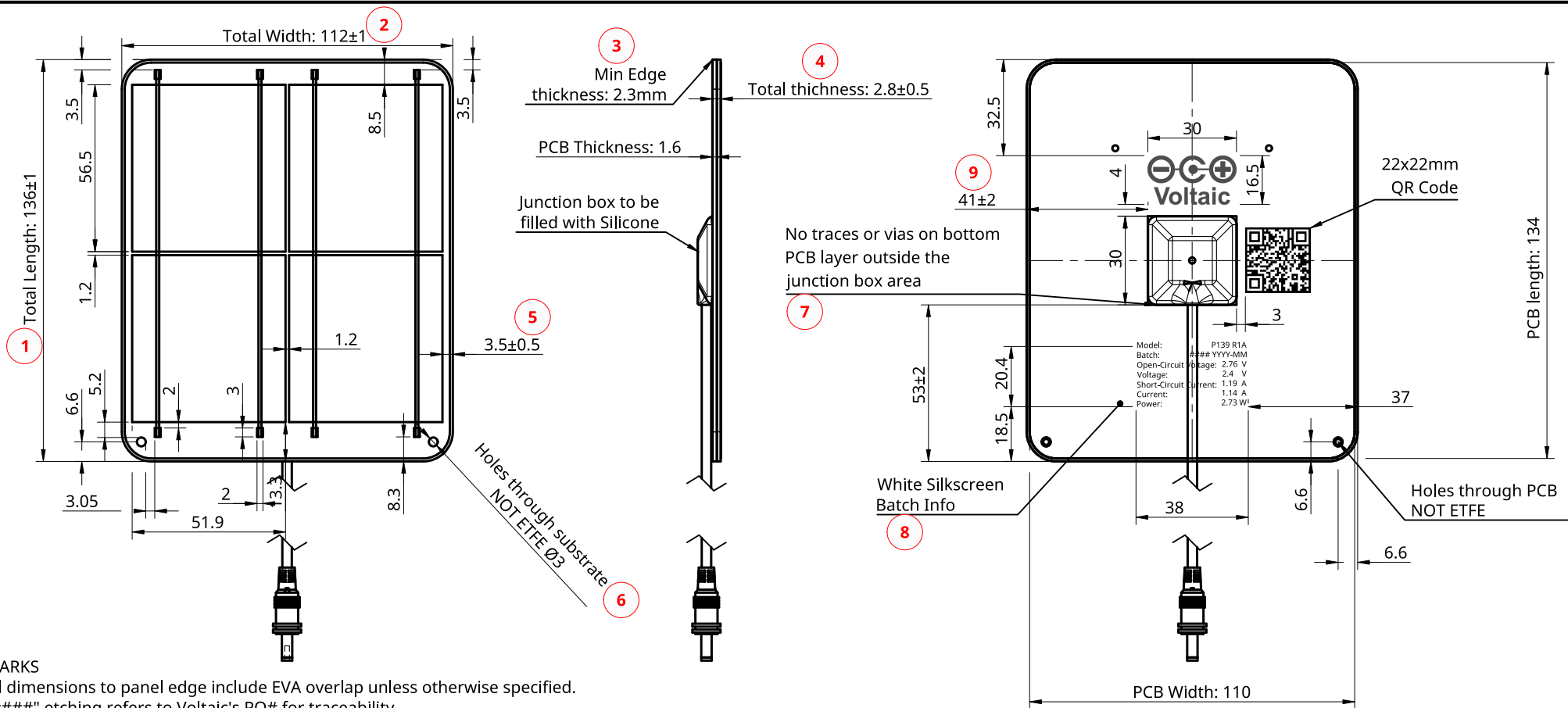




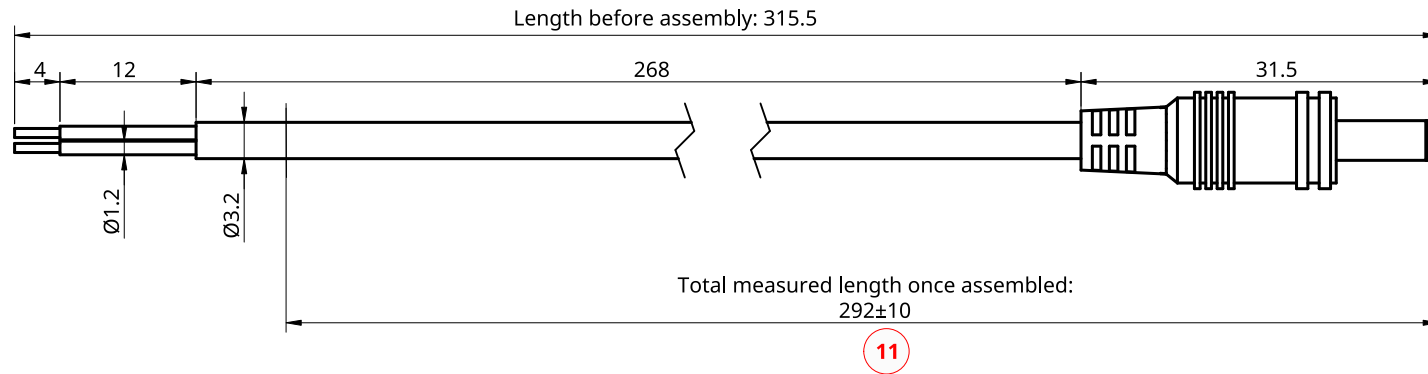
REMARKS

1. All dimensions to panel edge include EVA overlap unless otherwise specified.
2. "#####" etching refers to Voltaic's PO# for traceability
3. Note the red circled inspection items

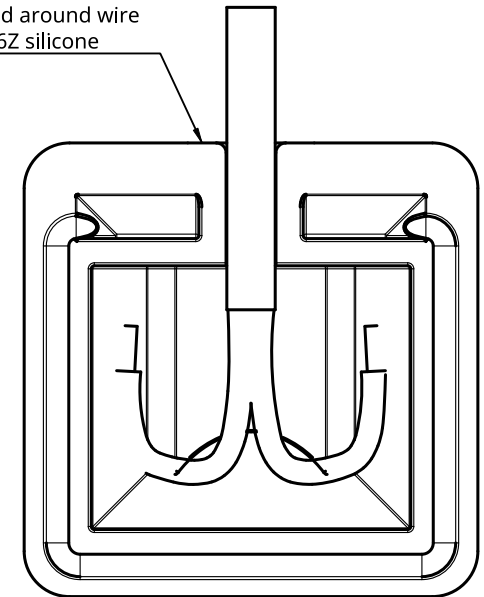


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Drawing Details		Construction		Power Specifications				
Panel Number	P139	All Materials RoHS Compliant		Output Tolerance: $\pm 10\%$ of Voltage and Current				
Revision	R1A	Substrate	SINGLE SIDED PCB	Solar Cell: EUROPEAN MONOCRYSTALLINE M182 10BB				
Engineer	AK	Encapsulant	EVA F806P	Nominal Efficiency: $\geq 23.2\%$		Cell Pieces 4S1P		4
Approval	SM 2025-11-05	Top Layer	TEFKA ECTFE	Panel Electrical Rating		Nominal	Expected	
Date Created	2021-01-18	Top Layer Pattern	YH04	Open-Circuit Voltage	Voc	2.76	2.62	V
Date Modified	2025-11-05	Wire Number	W017	Voltage at Max Power	Vp	2.4	2.28	V
Changes	INITIAL DESIGN	Measured Wire Length	292	Short-Circuit Current	Isc	1.19	1.17	A
Tolerance: ± 0.3 mm	Units: mm	Strain Relief	J-BOX	Current at Max Power	Ip	1.14	1.08	A
Scale: 1:1.6	Sheet: 1/3	Attachment	NONE	Maximum Power	Wp	2.73	2.47	W



Interior and around wire
with HT906Z silicone

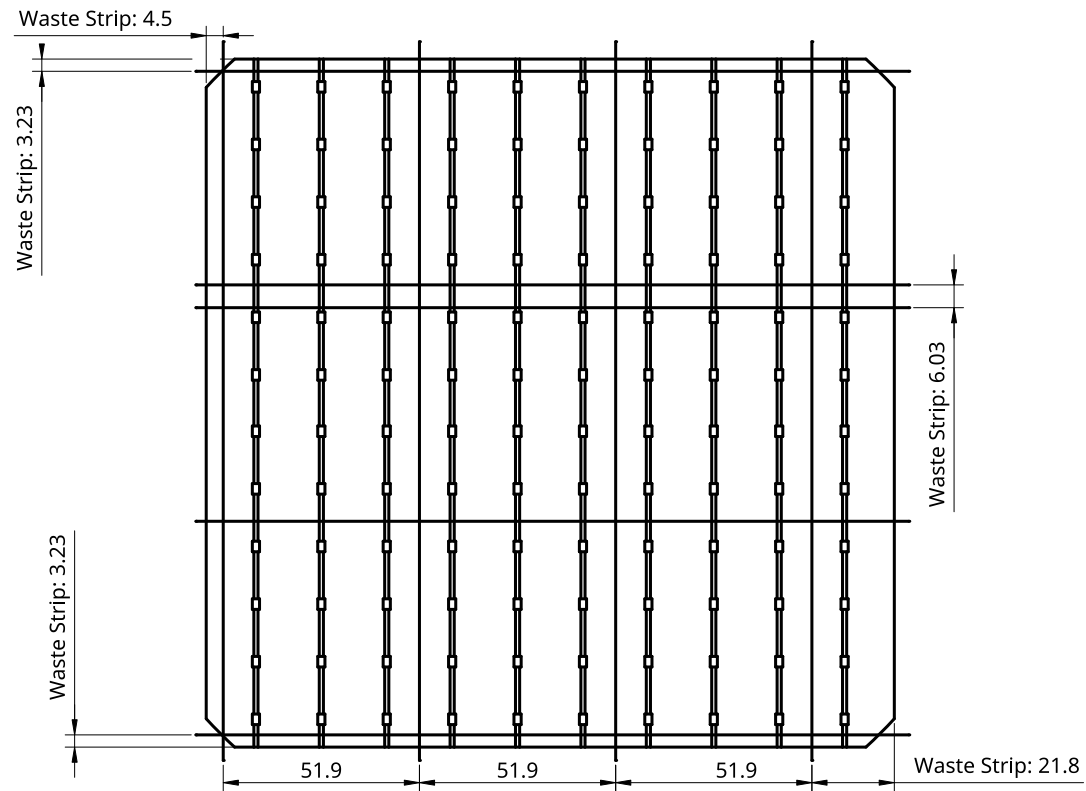


Assembly to J-Box



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Drawing Detail		Construction	
Wire Number	W017	All Materials RoHS Compliant	
Revision	R1B	Length	315mm
Engineer	RO	Gauge	22 AWG
Approval	SM 2022-01-25	Connector	M3511
Date Created	2021-01-18	Crimp	N/A
Date Modified	2025-11-05	Jacket Color	RED
Changes	LENGTH	Jacket Material	PU
Tolerance per mm	Length > 30mm: $\pm .04$ mm	Insulator Colors	RED & BLACK
	Length < 30mm: $\pm .15$ mm	Insulator Material	PVC
	Diameter: $\pm .03$ mm	Scale: 1:8	Sheet: 2/3



Voltaic

Cell Cut Diagram

Cell	EUROPEAN MONOCRYSTALLINE M182 10BB	
Cell Efficiency	>23.2%	
Panel Reference	P139	
Panel Revision	R1A	
Date Created	2021-01-18	
Date Modified	2025-11-05	
Approval	SM 2025-11-05	
Tolerance: ± 0.3 mm	Units: mm	
Scale: 1:1.5	Sheet: 3/3	

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