

# Midsummer Energy

*Technology Day – 7<sup>th</sup> May, 2020*

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# 01



**Our Positioning**



**Our Advantage**



**Our Product**



**Partner of Choice**

# A GLOBAL PLAYER



**40GW+**

Modules shipped to date



**3GW+**

Grid-tied projects



**100+Countries**

500+ Active customers



**13,000+**

Employees

# OUR STRONG FOOTPRINT IN EUROPE



**>10 GW shipped to Europe**

Annual EU shipments >3GW



**9 Regional Offices**

Close to the market



**60+ Employees**

Europe is our home turf



**70+ Distributors**

Local network partners for you



**20+ Countries**

Active customers



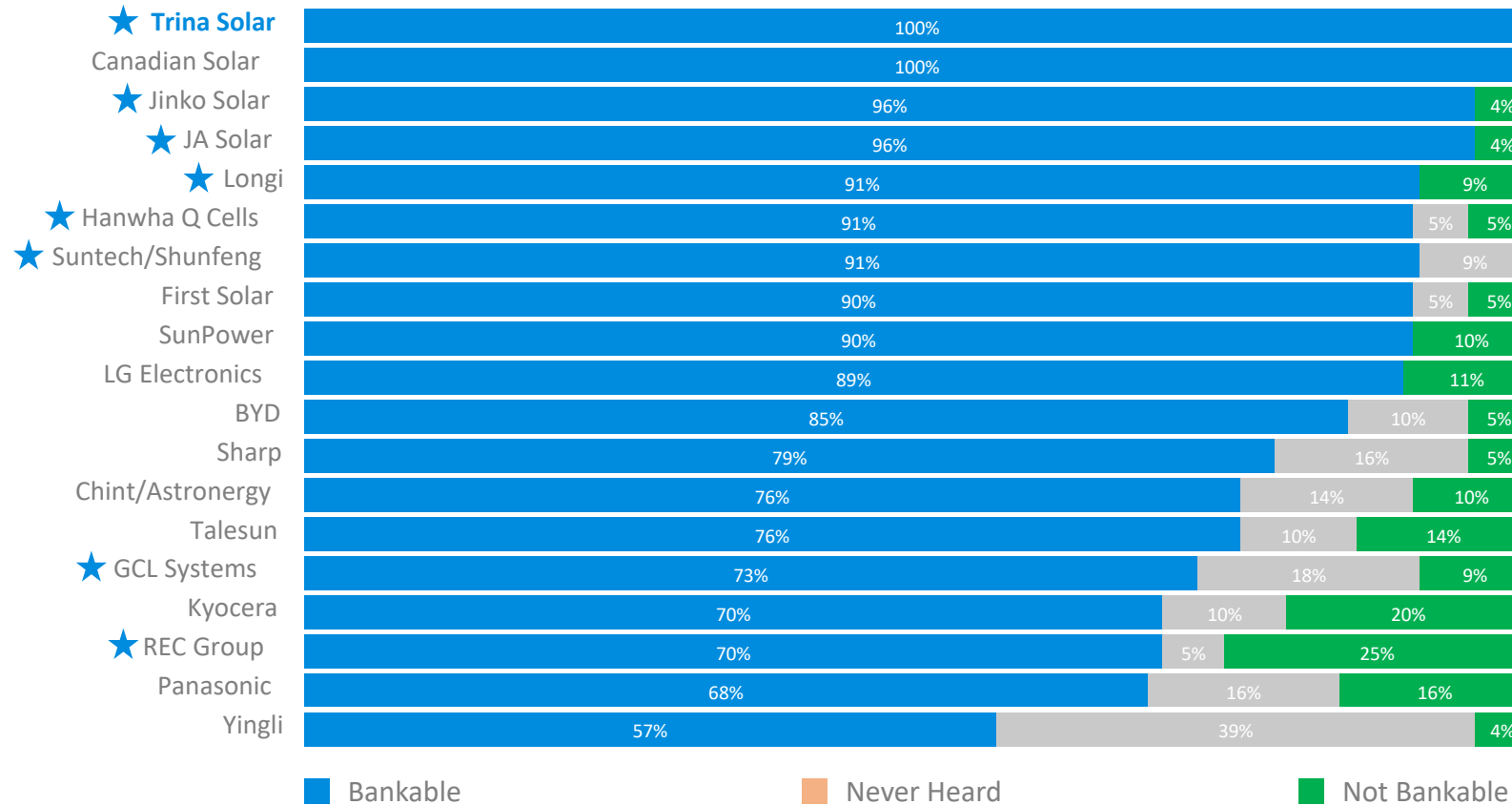
Trina Solar Regional Office



Distribution Partner

# A RELIABLE BRAND

## Bloomberg NEF's PV module bankability results



“Top Bankable  
Module Supplier”  
2016 – 2019

Four times  
in a Row

Source: BloombergNEF

★ Note: Stars indicate the top performers in PVEL's [2019 PV Module Reliability Scorecard](#). PVEL did not test all of the manufacturers listed above, so a missing star is not indicative of poor quality.

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Our Positioning



Our Advantage



Our Product



Partner of Choice

# THE NEW GENERATION: AT A GLANCE

## 2019



TSM-DD05A.08(II)

Previous Generation	Extra Power	New Generation
Full cells	6W	Half-cut cells
Round cell corners	4W	Full square cells
156mm wafers	10W	158mm wafers
5 busbars	5W	Multi busbars
	<b>+25W</b>	
	<b>+7.9%</b>	

## 2020



TSM-DE06M.08(II)

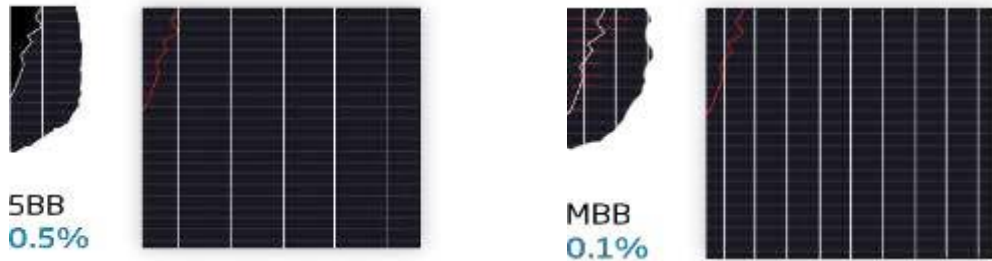
9 busbars

## Halfcut-Cell MBB (9 wires)

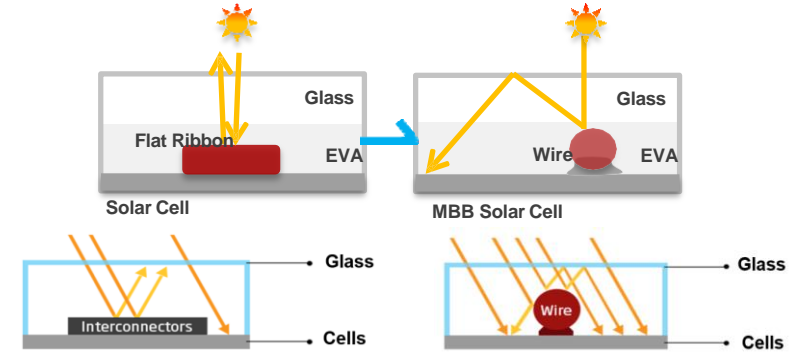


## Less sensitive to cracks

Reliability advantage of MBB vs 5BB

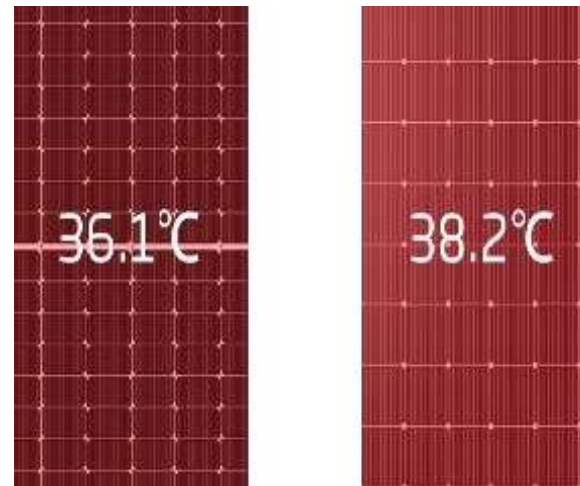


## Power gain 8W (shading reduction+ light trapping)



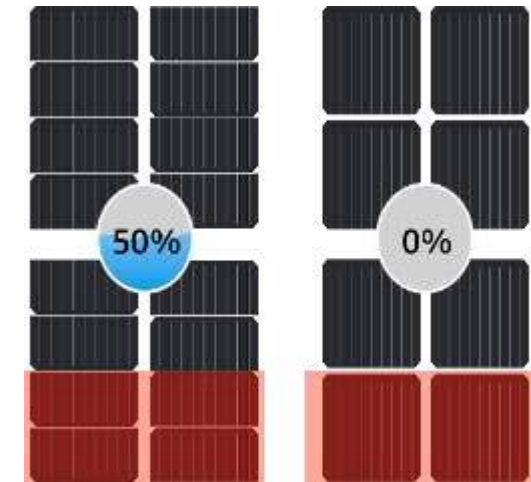
## Lower operating temp.

(full cell vs. halfcut cell; lower series resistance)



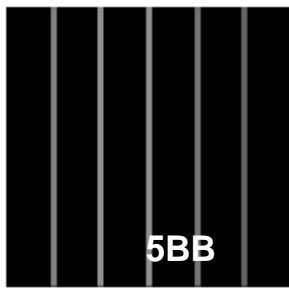
## Shading advantage

(full cell vs. halfcut cell)

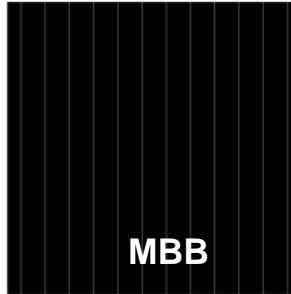




## Black cell



5BB



MBB

Lower reflection > Better appearance

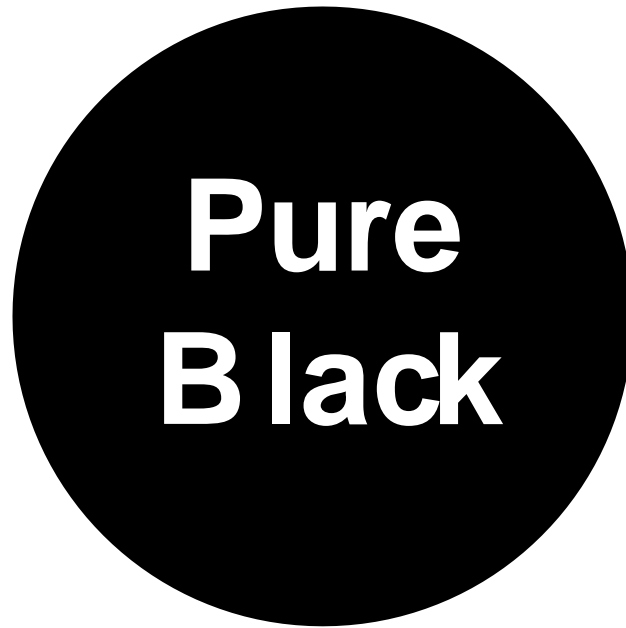


Trina MBB full black module

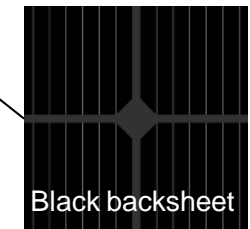
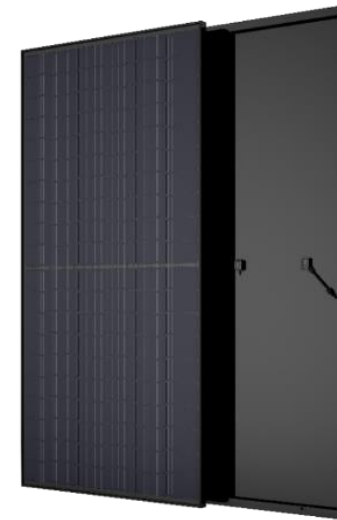


Normal 5BB "black" module

Special cell blackening treatment  
Machine selection for color accurate control



## Black module



Black details:



Main cross connectors covered with black adhesive



Black label

# TECHNOLOGY INTEGRATION – DUAL GLASS



Symmetry structures minimize micro-cracks and snail trails



Certified Class A fire rating



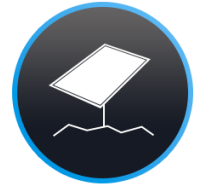
Resistant to environmental erosion from sand, acid, salt mist and alkali



Extended to 30-year power warranty



Over 3 GW cumulative dual glass shipments globally



Best partner for tracker

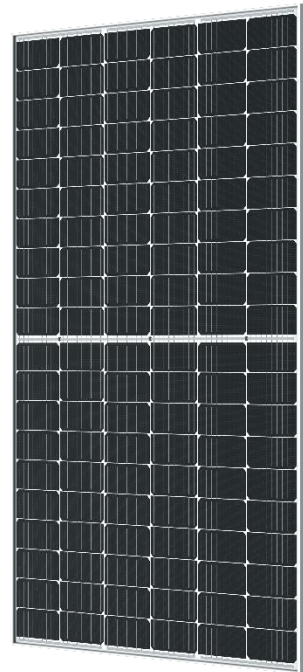


Less than 3% power degradation in Triple IEC standard tests by RETC



18 Dual glass patents

# 166 wafer module for high BOS cost saving



TSM-DE08M(II)

TSM-DE08M.08

## High Power

Up to **375W** in 2020

## Technology

PERC mono, 166 wafer  
half-cut, multi-busbar

## Improved Aesthetics

Available with Black Frame (DE08M.08)

## Dual Glass Option Available

Class-A Fire rating on DEG8M(II) or DEG8M.08

03



**Our Positioning**



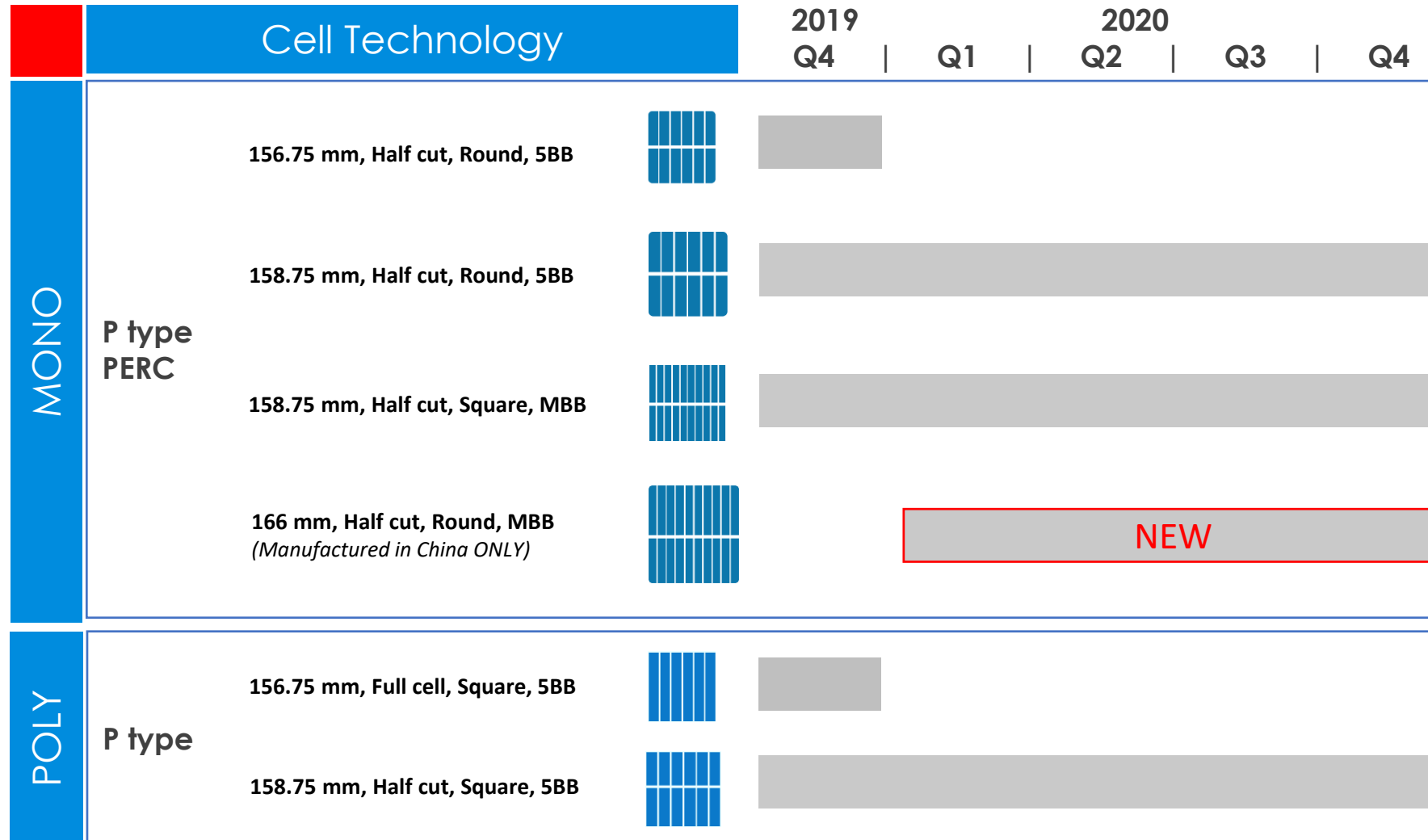
**Our Advantage**



**Our Product**



**Partner of Choice**



NOTE: Timeline above indicates manufacturing time. Arrival time to customers can vary depending on shipment lead time and availability.

Application: **Residential Rooftop** | Channel: **Distributor, Installer** | Delivery from: **Rotterdam Warehouse**

Product Line	2019	2020			
	Q4	Q1	Q2	Q3	Q4
PERC MONO	PERC mono, black frame, black backsheet  HoneyBlack™ TSM-DD06M.05(II)	320-330 W (120 half-cut cell, 158.75 wafer, MBB + Square mono)			
	PERC mono, black frame, white backsheet  Honey™ TSM-DE06M.08(II)	330-340 W (120 half-cut cell, 158.75 wafer, MBB + Square mono)			

*NOTE: Timeline above indicates manufacturing time. Arrival time to customers can vary depending on shipment lead time and availability.*

Application: Residential & C&I Rooftop | Channel: Distributor, Installer | Delivery from: Rotterdam Warehouse

Application: Large Ground Mount Project | Channel: Utilities, IPP, PD, EPC | Delivery from: Factory to project site

	Product Line	2019		2020				
		Q4		Q1	Q2	Q3	Q4	
PERC MONO	PERC mono, silver frame, white backsheet	<b>TSM-DE06M(II)</b>	<b>330-340 W</b> (120 half-cut cell, 158.75 wafer, MBB+square mono)	Datasheet version 2019_B	Datasheet version 2020_A			
		<b>TSM-DE08M(II)</b>	<b>360-375 W</b> (120 half-cut cell, 166 wafer, MBB+round mono)	Datasheet version 2020_A				
POLY	Poly, silver frame, white backsheet	<b>TSM-PE06H</b>	<b>285-290 W</b> (120 half-cut cell, 158.75 wafer, 5BB+LRF)	Datasheet version 2019_B	Datasheet version 2020_A			

**Note:**

- Double glass versions are also available for models above
- Double glass modules produced from Oct. 2019 will be with 2mm glass
- Timeline above indicates manufacturing time. Arrival time to customers can vary depending on shipment lead time and availability.

04



**Our Positioning**



**Our Advantage**



**Our Business**



**Partner of Choice**



# TRINA SOLAR: PARTNER OF CHOICE

## ✓ **Top Reliability and Performance**

Strict internal test standards | Field-proven high performance |  
Competitive warranty

## ✓ **Top Innovation**

State Key Lab for R&D and quality tests | International team of leading scientists |  
More than 1,000 patents | 19 performance world records

## ✓ **Top Volume**

Biggest PV manufacturer with >40 GW shipments to date

## ✓ **Top Bankability Rating**

“Most Bankable PV Manufacturer” Bloomberg New Energy Finance four years in a row (2016-2019)  
| Solid financials thanks to sustainable business

## ✓ **Top Responsibility**

Highest environmental and social standards | CSR Gold Medal from Ecovadis |  
Top SVTC Solar Scorecard rating | Full PV Cycle member for module recycling



# Power beyond Solar

[www.trinasolar.com](http://www.trinasolar.com)