

SOLAR PANEL



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SUNMASTER



CONTENT

₽3 166mm solar cell



₽5

₽17

210mm solar cell 580-605W

166mm solar cell 350-385W











182mm solar cell

P **11**







210mm solar cell 520-545W



₽19

210mm solar cell 640-665W



₽21 Shingled PV Module 405-670W



















SunMaster 3

SM300-345W(108)

166mm Cells Mono **PERC with MBB & Half-cut** Technology

Quality Guarantee



Standard linear power output augrantee



300-345W

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO ISO 9001-2015/Quality management system ISO 14001-2015/Standards for environmental management system ISO 45001-2018/International standards for occupational health & safety

Key Features

-0.55%

power attenuation





30years Power warranty



Process Upgraded

Higher Power Gains and Lower Losses ₩))



Mechanical Characteristic

Cell type	Il type Monocrystalline PERC 166*83mm										
Number of cells		108(6x	18)			1	1038		I	Unit: mm	
Module dimensions	1590x1038x3	5mm (62.60)x40.87x1.3	8inches)			988		-		.5 .
Weight		16.5kg (36.	63lbs)			Bar code	1	4.9×14		Ŧ	2 ber
Front cover	3.2mm(0.13inches	s) tempere	d glass wit	h AR coating				Mounting hole	esi	2	
Frame	Ano	dized alum	ninum alloy			Label				9	_
Junction box		≥IP68 &	UL								
Cable	4mm² (0.006inch Landsca	ies²), Portro ipe: 1200m	ait: 300mm m (47.24inc	(11.81inches); ches)	25 75	2.44 Groundir	ig holes	Ā	A	В	
Connector	MC4	4 or MC4 c	ompatible		15					lo.	
Temperature Characteris	stics										
Nominal Operating Cell Tem	perature (NOCT)			43°C±2°C	-	•		+	35		
Temperature Coefficients of Pmax -0.36% /°C			-								
Temperature Coefficients of	Voc			-0.28% /°C	- -	4-7.5×7.5	-	16~3.5×8.5 Drainage holes			777777777777777777777777777777777777777
Temperature Coefficients of	lsc			0.05% /°C	_			• •	4		
Packaging						Rear View			Sectio	on A-A	
Standard packaging 31pcs/pallet				31pcs/pallet	-						
Module quantity per 20'container 186pcs				186pcs		S	pecification	ns in this do	atasheet a	re subject t ice	:0
Module quantity per 40'container 868pcs(HQ)				868pcs(HQ)							
Electrical Characteristics	at STC										
Maximum Power (Pmax)		300W	305W	310W	315W	320W	325W	330W	335W	340W	345W
Open Circuit Voltage (Voc)		34.26V	34.47V	34.68V	34.87V	35.06V	35.25V	35.44V	35.63V	35.82V	36.01V
Short Circuit Current (lsc)		10.37A	10.44A	10.51A	10.57A	10.64A	10.71A	10.78A	10.85A	10.92A	10.99A
Voltage at Maximum Power	(Vmp)	30.23V	30.44V	30.64V	30.85V	31.05V	31.26V	31.46V	31.67V	31.87V	32.08V
Current at Maximum Power ((Imp)	9.93A	10.02A	10.12A	10.22A	10.32A	10.41A	10.51A	10.60A	10.70A	10.79A
Module Efficiency(%)		19.17	19.34	19.51	19.68	19.85	20.02	20.19	20.36	20.53	20.70
Operating Temperature						-40°C	to +85°C				
Maximum System Voltage						1000V DC	C/1500V DC				
Fire Resistance Rating				Тур	be 1(in accor	dance with	n UL1703)/Clo	ass C(IEC617	730)		
Maximum Series Fuse Rating	I					2	25A				
STC Irradiance 1000W/m2, 0	Cell temperature 25°	°C, AM1.5; T	olerance o	of Pmax ±3%; N	1easuremer	nt Toleranc	e ±3%				
Electrical Characteristics	at NOCT										
Maximum Power (Pmax)		225W	228W	231W	234W	237W	240W	243W	246W	249W	252W
Open Circuit Voltage (Voc)		33.2V	33.4V	33.6V	33.8V	34.0V	34.2V	34.4V	34.6V	34.8V	35.0V
Short Circuit Current (lsc)		8.49A	8.54A	8.59A	8.64A	8.69A	8.74A	8.79A	8.84A	8.89A	8.94A
Voltage at Maximum Power	(Vmp)	27.51V	27.72V	27.91V	28.12V	28.38V	28.64V	28.90V	29.16V	29.42V	29.68V
Current at Maximum Power ((Imp)	8.18A	8.23A	8.28A	8.32A	8.37A	8.42A	8.46A	8.51A	8.56A	8.60A
NOCT: Irradiance 800W/m2	, Ambient temperatu	ure 20°C, V	Vind Speed	d 1m/s							
IV Curves											

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings





SunMaster 3M

SM350-385W(120)

166mm Cells Mono **PERC with MBB & Half-cut** Technology

Quality Guarantee





350-385W

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO ISO 9001-2015/Quality management system ISO 14001-2015/Standards for environmental management system ISO 45001-2018/International standards for occupational health & safety

Key Features

-0.55%

power attenuation







30years Power warranty



Process Upgraded

Higher Power Gains and Lower Losses ₩))



Mechanical Characteristic

Cell type Monocry	stalline PERC	: 166*83mm						
Number of cells	120(6x20)			 -	1039		Unit: mr	n
Module dimensions 1756x1039x35	mm (69.13x40).91 x1.38inches)			989			a.145
Weight	18.5kg (41.07k	os)			Bar code	8-9×14	T	\sim
Front cover 3.2mm(0.13inches)	tempered gl	lass with AR coati	ng		\square	Mounting holes	14	
Frame Anod	ized aluminu	m alloy			Label			9
Junction box	≥IP68 & UL						I	_
Cable 4mm² (0.006inche Landscap	es²), Portrait: 3 be: 1200mm (4	300mm (11.81inche 47.24inches)	es);		2-∲ 4 Grounding holes			В
Connector MC4	or MC4 com	patible	1756	1356				
Temperature Characteristics								
Nominal Operating Cell Temperature (NOCT)		43°C±2°C	>	<u> </u>		÷ .	<u>د</u>	
Temperature Coefficients of Pmax		-0.36% /°(C					
Temperature Coefficients of Voc		-0.28% /°	С		i=7.5×7.5	16-3.5×8.5		
Temperature Coefficients of lsc		0.25% /°C	>		inage holes	Drainage holes	(35
Packaging					Rear View		Sect	ion A-A
Standard packaging 31pcs/pallet								
Module quantity per 20'container 186pcs					Specifications chan	in this datash ae without pri	neet are subject for notice.	et to
Module quantity per 40'container 806pcs(HQ)						9		
Electrical Characteristics at STC								
Maximum Power (Pmax)	350W	355W	360W	365W	/ 370W	375W	380W	385W
Open Circuit Voltage (Voc)	40.8V	41.0V	41.2V	41.41	41.6V	41.8V	42.0V	42.2V
Short Circuit Current (lsc)	11.02A	11.09A	11.16A	11.234	A 11.3A	11.37A	11.44A	11.51A
Voltage at Maximum Power (Vmp)	33.8V	34.0V	34.2V	34.3\	/ 34.6V	34.8V	35.0V	35.2V
Current at Maximum Power (Imp)	10.36A	10.45A	10.53A	10.62/	A 10.70A	10.78A	10.86A	10.94A
Module Efficiency(%)	19.18	19.46	19.73	20.0	20.28	20.55	20.83	21.10
Operating Temperature				-2	40°C to +85°C			
Maximum System Voltage				1000	0V DC/1500V DC			
Fire Resistance Rating			Type 1(in	accordance	e with UL1703)/Cla	ss C(IEC61730)		
Maximum Series Fuse Rating					25A			
STC Irradiance 1000W/m2, Cell temperature 25°C	, AM1.5; Tole	rance of Pmax ±3	3%; Measure	ement Toler	ance ±3%			
Electrical Characteristics at NOCT								
Maximum Power (Pmax)	259W	263W	267W	271W	275W	279W	283W	287W
Open Circuit Voltage (Voc)	37.4V	37.6V	37.8V	38.0\	/ 38.2V	38.4V	38.6V	38.8V
Short Circuit Current (lsc)	8.91A	8.97A	9.03A	9.094	9.15A	9.21A	9.27A	9.33A
Voltage at Maximum Power (Vmp)	30.8V	31.0V	31.2V	31.4V	31.6V	31.8V	32.0V	32.2V
Current at Maximum Power (Imp)	8.41A	8.49A	8.56A	8.644	a 8.71A	8.78A	8.85A	8.92A
NOCT: Irradiance 800W/m2, Ambient temperatur	e 20°C, Wind	d Speed 1m/s						
N/ Cumies								

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings





SunMaster 4L

SM435-465W(144)

166mm Cells Mono **PERC with MBB & Half-cut** Technology

Quality Guarantee





435-465W

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO ISO 9001-2015/Quality management system ISO 14001-2015/Standards for environmental management system ISO 45001-

2018/International standards for occupational health & safety

Key Features

-0.55%

power attenuation



Select Grade A Crystalline Silicon Solar Cells (A)



30years Power warranty



Process Upgraded

Higher Power Gains and Lower Losses ₩))



Mechanical Characteristic

Cell type Monocrystalline PERC KA/SERIM Namba cir calls 1446/62/4 Weight 22xg (AB.BAIta) Weight 22xg (AB.BAIta) France cover 3.20m(103)/35mm (B2/KA0/MAX Sinches) Junctan box seveet all Anodized duminum and (J)/20m (AB.BAIta) intermediate all transportations and the AR coordinations Colle Annet? (D.BABAIta) Connector MCA or MCA compatible Temperature Coefficients of Prax -0.35k /r.C. Temperature Coefficients of Prax -0.35k /r.C. Temperature Coefficients of Prax -0.35k /r.C. Module quantity per 20 container 502 /r.C. Module quantity per 20 container 500 /r.C. Module quantity per 20 contai									
Number of cells164(62/0)Unit: minModule dimension7003/039/2300 (%200 %64/25). Tracka0 %47.0530 (%12). Standowsk12. Standowsk12	Cell type	Monocrystallin	e PERC 166*8	3mm	_				
Module dimensions 202/109/X38mm III2.764/0.944.1.58mcheal Weight 2.22g (/8.8.6/ka) Finance cover 3.2mm/0.13incheal tempered glass with AR cooling Junction box *P8/8.6 LL Cable 4mm² 0.000/metodely. Portricit: S00mm IBE/rockeal Temperature Coefficients of Prox -0.58 /r.C. Temperature Coefficients of Prox -0.58 /r.C. Temperature Coefficients of Prox -0.58 /r.C. Module quantity per 20/contrainer 6350rs Bandard pookaging 3150rs/politet Standard pookaging 11550rs Module quantity per 20/contrainer 6350rs Module quantity per 20/contrainer 6350rs <td>Number of cells</td> <td>144</td> <td>4(6x24)</td> <td></td> <td>_</td> <td>1040</td> <td></td> <td>Unit:</td> <td>mm</td>	Number of cells	144	4(6x24)		_	1040		Unit:	mm
Weight 22xg (48.84bs) Front cover 3.2mm(013)/scheb) tempered gloss with AR cooting Humon box siPeR 6 U. Coble Annoficed duminum alloy Junction box siPeR 6 U. Coble Annoficed duminum alloy Junction box siPeR 6 U. Connector MC4 or MC4 compatible Temperature Coefficients of Inconcepticities mC4 or MC4 compatible Temperature Coefficients of Inconcepticities 0.258 / C. Packaging 31pcs/pollet Stonatority par A0container 185pcs/ Module quantity par 20 container 185pcs/ Module quantity par 20 container 185pcs/ Module quantity par 20 container 110.04 Module quantity par 20 container 682pcs/ Module quantity par 20 container 110.04 Module quantity par 20 container 622pcs/ Module quantity par 20 container 110.04 Module quantity par 20 container 122A Module quantity par 20 con	Module dimensions	2102x1039x35mm (8	2.76x40.94x1	.38inches)		990			
Frent cover 3.2mm(0.13mchea) tempered glass with AR coating Aunction box Image: Control of Co	Weight	22kg	48.84lbs)			Bar code	8-9×14 Mounting holes		RUS
Frame Anadized aluminum alloy Junction box NEM8 & LI Colo Anm ² (0.00%/chcm) (0	Front cover	3.2mm(0.13inches) temp	ered glass w	ith AR coating		Ļ		4	
Junction box NPR68 & UI Cable 4mm (20,000mm (12,81m)	Frame	Anodized of	aluminum allo	У	•	Label	₽ ₽ B	-	
Coble 4mm ² (0_Observer, 200mm (M/2 winches) Londscoper, 200mm (M/2 winches) B Connector MCA or MCA compatibility Image: 200mm (M/2 winches) Image: 200mm (M/2 winches) Connector MCA or MCA compatibility Image: 200mm (M/2 winches) Image: 200mm (M/2 winches) Image: 200mm (M/2 winches) Temperature Coefficients of Trax -0.35% / C Image: 200mm (M/2 winches)	Junction box	≥IP¢	58 & UL				dh	-•	9
Connector MC4 or MC4 compatible Temperature Characteristics Nominal Operating Cell Temperature (NOCT) 4.3°C.22°C Temperature Coefficients of Pmax -0.36% /°C Imperature Coefficients of Vac -0.28% /°C Temperature Coefficients of Vac -0.28% /°C Packaging 31pcs/pallet Standard packaging 31pcs/pallet Module quantity per 20'container 852pcs Module quantity per 20'container 682pcs1HQI Electrical Characteristics at STC Specifications in this datasheet are subject to change without prior notice. Short Circuit Valtage (Vac) 49.6V 44.0W 44.5W 45.0W 46.0W 46.5W Short Circuit Valtage (Vac) 11.0A 11.0A 11.2A 11.2A 11.2A 11.2A Nortice La Current (Isc) 11.9A 10.5A 10.7A 10.84A 10.9TA 10.9TA 10.9TA Maximum Power (Imp) 10.5AA 10.6A 10.7A 10.84A 10.9TA 10.9TA 10.9TA Valtage at Maximum Power (Imp) 10.5AA 10.7A 10.84A	Cable	4mm² (0.006inches²), Po Landscape: 120	ortrait: 300mr 00mm (47.24ir	m (11.81inches); nches)		2¢4 Grounding holes			В
Temperature Characteristics Neminal Operating Cell Temperature (NOCT) 4.3°C.42°C Temperature Coefficients of Prax -0.36k /°C Temperature Coefficients of Voc -0.36k /°C Packaging 0.25k /°C Packaging 31pcs/pollet Module quantity per 20°container 155pcs Module quantity per 20°container 682pcs]HOP Electrical Characteristics at STC 0.021 / 0.01 / 0.	Connector	MC4 or MC	C4 compatible	e	202 260				
Nominal Operating Cell Temperature (NOCT) 43°Cs2°C Temperature Coefficients of Pmax -0.35% /°C Temperature Coefficients of Vac -0.28% /°C Packaging 31pcs/pollet Standard packaging 31pcs/pollet Module quantity per 20°container 155pcs Module quantity per 20°container 682pcs/HO) Electrical Characteristics at STC Specifications in this datasheet are subject to change without prior notice. Module quantity per 20°container 682pcs/HO) Electrical Characteristics at STC Specifications in this datasheet are subject to change without prior notice. Module quantity per 40°container 682pcs/HO) Short Circuit Voltage (Voc) 49.8V 50.0V 50.2V 50.4V 50.8V Short Circuit Current (Isc) 11.10A 11.8A 1122A 11.28A 11.34A 11.40A Voltage at Maximum Power (Imp) 10.56A 10.63A 10.77A 10.84A 10.91A 10.97A Maximum Setter Fuse Rating Type Itin accordance with UL1703)/Class CIEC61730) Tree statance Rating 1000 PC/IS00V DC Tree statance Rating 1000 PC/IS00V DC T	Temperature Character	istics			_				
Temperature Coefficients of Pmax -0.36% / °C Temperature Coefficients of Voc -0.38% / °C Packaging 0.25% / °C Standard packaging 31pcs/pallet Module quantity per 20°container 155pcs Module quantity per 20°container 682pcs/Pallet Specifications in this datasheat are subject to change without prior notice. Specifications in this datasheat are subject to change without prior notice. Maximum Power (Pmax) 435W 440W 445W 450W 450W 50.6V Specifications in this datasheat are subject to change without prior notice. 50.8V 50.4V 50.6V 50.4V 50.6V 50.4V 50.6V 50.4V 50.6V 50.8V	Nominal Operating Cell Ten	nperature (NOCT)		43°C±2°C	_	<u>I</u>	₽		1
Temperature Coefficients of Voc -0.28k /*C Temperature Coefficients of Isc 0.25k /*C Packaging 31pcs/pollet Module quantity per 2000ntoiner 155pcs Module quantity per 4000ntoiner 682pcs/H01 Electrical Characteristics at STC Specifications in this datasheat are subject to change without prior notice. Maximum Power (Pmax) 435W 440W 445W 450W 460W 465W Open Circuit Voltage (Voc) 49.6V 49.8V 50.0V 50.2V 50.4V 50.6V 50.8V Voltage ef Maximum Power (Imp) 11.10A 11.16A 11.22A 11.28A 11.34A 11.40A 11.64A Voltage ef Maximum Power (Imp) 10.55A 10.63A 10.70A 10.77A 10.84A 10.97A 10.97A Module Efficiency(%) 19.9 20.13 20.36 20.58 20.81 21.04 21.2V Operating Temperature -40°C to +85°C -40°C to	Temperature Coefficients o	f Pmax		-0.36% /°C	_ +		o	35	
Temperature Coefficients of Isc 0.25% / C 1000000000000000000000000000000000000	Temperature Coefficients o	of Voc		-0.28% /°C	_				
Packaging Image: Container Section A-A Module quantity per 20'container 155pcs Specifications in this datasheet ore subject to change without prior notice. Module quantity per 40'container 682pcs(HQ) Specifications in this datasheet ore subject to change without prior notice. Electrical Characteristics at STC Specifications in this datasheet ore subject to change without prior notice. Solav Maximum Power (Pmax) 435W 440W 445W 450W 455W 460W 465W Open Circuit Voltage (Voc) 49.6V 49.8V 50.0V 50.2V 50.4V 50.8V 50.8V Short Circuit Voltage (Voc) 49.6V 49.8V 50.0V 50.2V 50.4V 50.8V 50.8V Short Circuit Voltage (Voc) 49.6V 49.8V 50.0V 50.2V 50.4V 50.8V 50.8V Voltage at Maximum Power (Imp) 11.10A 11.16A 11.2A 11.8A 11.40A 11.40A Module Efficiency(%) 19.9 20.13 20.36 20.81 21.04 21.27 Operating Temperature -40°C to +85°C	Temperature Coefficients o	of lsc		0.25% /°C	_	4-7.5×7.5 Drainage holes	16-3.5×8.5 Drainage holes		75
Standard packaging 31pcs/pallet Rear View Section A-A Madule quantity per 20'container 155pcs Specifications in this datasheet are subject to change without prior notice. Madule quantity per 40'container 682pcs(HG) Specifications in this datasheet are subject to change without prior notice. Electrical Characteristics at STC Maximum Power (Pmax) 435W 4460W 445W 450W 465W 660W 465W Open Circuit Valtage (Voc) 49.6V 49.8V 50.0V 50.2V 50.4V 50.6V 50.8V Short Circuit Current (Isc) 11.10A 11.16A 1122A 11.28A 11.34A 11.40A 11.46A Voltage at Maximum Power (Imp) 10.56A 10.63A 10.70A 10.77A 10.84A 10.91A 10.97A Module Efficiency(%) 19.9 20.13 20.36 20.81 21.04 21.27 Operating Temperature -40°C to +85°C Maximum System Voltage 1000V DC/IslosV DC STC Irradiance 1000W/m2, Cell temperature 25°C, AM15, Tolerance of Pmax ±3%; Measurement Tolerance ±3% Electrical Characteristics at NOCT 20A 20A	Packaging				1/			-	
Module quantity per 20'container 155pcs Specifications in this datasheet are subject to change without prior notice. Module quantity per 40'container 682pcs(HG) Sectification in this datasheet are subject to change without prior notice. Electrical Characteristics at STC Moximum Power (Pmax) 435W 440W 445W 450W 455W 460W 465W Open Circuit Voltage (Voc) 49.6V 49.8V 50.0V 50.2V 50.4V 50.8V 50.8V Short Circuit Current (Isc) 11.10A 11.36A 11.22A 11.28A 11.34A 11.40A 11.46A Voltage at Maximum Power (Imp) 10.56A 10.63A 10.70A 10.77A 10.84A 10.97A Module Efficiency(%) 19.9 20.13 20.36 20.81 21.04 21.27 Operating Temperature -40°C to +85°C	Standard packaging			31pcs/pallet	-	Rear View		Se	ection A-A
Module quantity per 40'container 682pcs(HQ) Electrical Characteristics at STC Maximum Power (Pmax) 435W 440W 445W 450W 455W 460W 465W Open Circuit Voltage (Vac) 49.6V 49.8V 50.0V 50.2V 50.4V 50.8V Short Circuit Current (Isc) 11.10A 11.16A 11.22A 11.28A 11.34A 11.40A 11.46A Voltage at Maximum Power (Imp) 41.2V 41.4V 41.6V 41.8V 42.0V 42.2V 42.4V Current at Maximum Power (Imp) 10.56A 10.63A 10.77A 10.84A 10.91A 10.97A Module Efficiency(%) 19.9 20.13 20.36 20.81 21.04 21.27 Operating Temperature	Module quantity per 20'con	ntainer		155pcs		Specificati cl	ons in this dat nanae without	asheet are subj prior notice.	ectto
Beterical Characteristics at STC Maximum Power (Pmax) 435W 440W 445W 450W 455W 460W 465W Open Circuit Voltage (Voc) 49.6V 49.8V 50.0V 50.2V 50.4V 50.6V 50.8V Short Circuit Current (Isc) 11.10A 11.16A 11.22A 11.28A 11.34A 11.40A 11.46A Voltage at Maximum Power (Imp) 41.2V 41.4V 41.6V 41.8V 42.0V 42.2V 42.4V Current at Maximum Power (Imp) 10.56A 10.63A 10.70A 10.7A 10.84A 10.97A 10.97A Module Efficiency(%) 19.9 20.13 20.36 20.58 20.81 21.04 21.27 Operating Temperature	Module quantity per 40'con	ntainer		682pcs(HQ)				1	
Maximum Power (Pmax) 435W 440W 445W 450W 455W 460W 465W Open Circuit Voltage (Voc) 49.6V 49.8V 50.0V 50.2V 50.4V 50.8V 50.8V Short Circuit Current (Isc) 11.10A 11.16A 11.22A 11.28A 11.34A 11.40A 11.46A Voltage at Maximum Power (Vmp) 41.2V 41.4V 41.6V 41.8V 42.0V 42.2V 42.4V Current at Maximum Power (Imp) 10.56A 10.63A 10.70A 10.77A 10.84A 10.91A 10.97A Module Efficiency(%) 19.9 20.13 20.36 20.58 20.81 21.04 21.27 Operating Temperature -40°C to +85°C <	Electrical Characteristic	es at STC							
Open Circuit Voltage (Voc) 49.6V 49.8V 50.0V 50.2V 50.4V 50.6V 50.8V Short Circuit Current (Isc) 11.10A 11.16A 11.22A 11.28A 11.34A 11.40A 11.46A Voltage at Maximum Power (Vmp) 41.2V 41.4V 41.6V 41.8V 42.0V 42.2V 42.4V Current at Maximum Power (Imp) 10.56A 10.63A 10.70A 10.84A 10.91A 10.97A Module Efficiency(%) 19.9 20.13 20.36 20.81 21.04 21.27 Operating Temperature 40°C to +85°C 40°C to +85°C	Maximum Power (Pmax)	43	5W	440W	445W	450W	455W	460W	465W
Short Circuit Current (lsc) 11.10A 11.16A 11.22A 11.28A 11.34A 11.40A 11.46A Voltage at Maximum Power (Vmp) 41.2V 41.4V 41.6V 41.8V 42.0V 42.2V 42.4V Current at Maximum Power (Vmp) 10.56A 10.63A 10.70A 10.77A 10.84A 10.91A 10.97A Module Efficiency(%) 19.9 20.13 20.36 20.58 20.81 21.04 21.27 Operating Temperature -40°C to +85°C - - - - 21.27 Maximum System Voltage 1000V DC/I500V DC - 10.97A 10.97A 10.97A 10.97A 10.97A 10.97A 10.97A 10.97A 10.97A 12.04 21.27 - - 20.27 -	Open Circuit Voltage (Voc)	49	.6V	49.8V	50.0V	50.2V	50.4V	50.6V	50.8V
Voltage at Maximum Power (Vmp) 41.2V 41.4V 41.6V 41.8V 42.0V 42.2V 42.4V Current at Maximum Power (Imp) 10.56A 10.63A 10.70A 10.77A 10.84A 10.97A 10.97A Module Efficiency(%) 19.9 20.13 20.36 20.58 20.81 21.04 21.27 Operating Temperature -40°C to +85°C -40°C to +85°C - <td>Short Circuit Current (Isc)</td> <td>11.1</td> <td>OA</td> <td>11.16A</td> <td>11.22A</td> <td>11.28A</td> <td>11.34A</td> <td>11.40A</td> <td>11.46A</td>	Short Circuit Current (Isc)	11.1	OA	11.16A	11.22A	11.28A	11.34A	11.40A	11.46A
Current at Maximum Power (Imp) 10.56A 10.63A 10.70A 10.77A 10.84A 10.97A 10.97A Module Efficiency(%) 19.9 20.13 20.36 20.58 20.81 21.04 21.27 Operating Temperature -40°C to +85°C - <td< td=""><td>Voltage at Maximum Power</td><td>r (Vmp) 41.</td><td>2V</td><td>41.4V</td><td>41.6V</td><td>41.8V</td><td>42.0V</td><td>42.2V</td><td>42.4V</td></td<>	Voltage at Maximum Power	r (Vmp) 41.	2V	41.4V	41.6V	41.8V	42.0V	42.2V	42.4V
Module Efficiency(%) 19.9 20.13 20.36 20.58 20.81 21.04 21.27 Operating Temperature 40°C to +85°C 40°C to +85°C	Current at Maximum Power	(Imp) 10.5	56A	10.63A	10.70A	10.77A	10.84A	10.91A	10.97A
Operating Temperature -40° C to +85°C Maximum System Voltage 1000V DC/1500V DC Fire Resistance Rating Type 1(in accordance with UL1703)/Class C(IEC61730) Maximum Series Fuse Rating 20A STC Irradiance 1000W/m2, Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3% Electrical Characteristics at NOCT Maximum Power (Pmax) 323W 327W 331W 335W 339W 343W 347W Open Circuit Voltage (Voc) 45.6V 45.8V 46.0V 46.2V 46.6V 46.8V 46.8V Short Circuit Current (Isc) 8.99A 9.04A 9.09A 9.14A 9.19A 9.24A 9.29A Voltage at Maximum Power (Imp) 37.4V 37.6V 37.8V 38.0V 38.2V 38.4V 38.6V Current at Maximum Power (Imp) 8.64A 8.70A 8.76A 8.82A 8.88A 8.94A 8.99A	Module Efficiency(%)	19	.9	20.13	20.36	20.58	20.81	21.04	21.27
Maximum System Voltage1000V DC/1500V DCFire Resistance RatingType 1(in accordance with UL1703)/Class C(IEC61730)Maximum Series Fuse Rating20ASTC Irradiance 1000W/m2, Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%Electrical Characteristics at NOCTMaximum Power (Pmax)323W327W331W335W339W343W347WOpen Circuit Voltage (Voc)45.6V45.8V46.0V46.2V46.4V46.6V46.8VShort Circuit Current (Isc)8.99A9.04A9.09A9.14A9.19A9.24A9.29AVoltage at Maximum Power (Imp)37.4V37.6V37.8V38.0V38.2V38.4V38.6VCurrent at Maximum Power (Imp)8.64A8.70A8.76A8.82A8.88A8.94A8.99ANOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed Im/s	Operating Temperature					-40°C to +85°C			
Fire Resistance RatingType 1(in accordance with UL1703)/Class C(IEC61730)Maximum Series Fuse Rating20ASTC Irradiance 1000W/m2, Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%Electrical Characteristics at NOCTMaximum Power (Pmax)323W323W327W331W335W339W343W343WOpen Circuit Voltage (Voc)45.6V45.6V45.8V46.0V46.2V46.4V46.6V46.6V46.8VShort Circuit Current (Isc)8.99A9.04A9.09A9.14A9.19A9.24A9.29AVoltage at Maximum Power (Imp)37.4V37.6V37.8V38.0V38.2V38.4V38.6VCurrent at Maximum Power (Imp)8.64A8.70A8.76A8.82A8.88A8.94A8.99ANOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1m/s	Maximum System Voltage				100	00V DC/1500V DC			
Maximum Series Fuse Rating20ASTC Irradiance 1000W/m2, Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%Electrical Characteristics at NOCTMaximum Power (Pmax)323W327W331W335W339W343W347WOpen Circuit Voltage (Voc)45.6V45.8V46.0V46.2V46.4V46.6V46.8VShort Circuit Current (Isc)8.99A9.04A9.09A9.14A9.19A9.24A9.29AVoltage at Maximum Power (Vmp)37.4V37.6V37.8V38.0V38.2V38.4V38.6VCurrent at Maximum Power (Imp)8.64A8.70A8.76A8.82A8.88A8.94A8.99ANOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speet Im/s	Fire Resistance Rating			Тур	e 1(in accordan	ce with UL1703)/C	lass C(IEC61730)	
STC Irradiance 1000W/m2, Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%Electrical Characteristics at NOCTMaximum Power (Pmax)323W327W331W335W339W343W347WOpen Circuit Voltage (Voc)45.6V45.8V46.0V46.2V46.4V46.6V46.8VShort Circuit Current (Isc)8.99A9.04A9.09A9.14A9.19A9.24A9.29AVoltage at Maximum Power (Vmp)37.4V37.6V37.8V38.0V38.2V38.4V38.6VCurrent at Maximum Power (Imp)8.64A8.70A8.76A8.82A8.88A8.94A8.99ANOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1m/s	Maximum Series Fuse Rating	g				20A			
Electrical Characteristics at NOCT Maximum Power (Pmax) 323W 327W 331W 335W 339W 343W 347W Open Circuit Voltage (Voc) 45.6V 45.8V 46.0V 46.2V 46.4V 46.6V 46.8V Short Circuit Current (Isc) 8.99A 9.04A 9.09A 9.14A 9.19A 9.24A 9.29A Voltage at Maximum Power (Vmp) 37.4V 37.6V 37.8V 38.0V 38.2V 38.4V 38.6V Current at Maximum Power (Imp) 8.64A 8.70A 8.76A 8.82A 8.88A 8.94A 8.99A NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speet Im/s 5000	STC Irradiance 1000W/m2,	Cell temperature 25°C, AM1	.5; Tolerance	of Pmax ±3%; N	leasurement To	olerance ±3%			
Maximum Power (Pmax) 323W 327W 331W 335W 339W 343W 347W Open Circuit Voltage (Voc) 45.6V 45.8V 46.0V 46.2V 46.4V 46.6V 46.8V Short Circuit Current (Isc) 8.99A 9.04A 9.09A 9.14A 9.19A 9.24A 9.29A Voltage at Maximum Power (Vmp) 37.4V 37.6V 37.8V 38.0V 38.2V 38.4V 38.6V Current at Maximum Power (Imp) 8.64A 8.70A 8.76A 8.82A 8.88A 8.94A 8.99A NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed Im/s 5000 minute state	Electrical Characteristic	es at NOCT							
Open Circuit Voltage (Voc) 45.6V 45.8V 46.0V 46.2V 46.4V 46.6V 46.8V Short Circuit Current (Isc) 8.99A 9.04A 9.09A 9.14A 9.19A 9.24A 9.29A Voltage at Maximum Power (Vmp) 37.4V 37.6V 37.8V 38.0V 38.2V 38.4V 38.6V Current at Maximum Power (Imp) 8.64A 8.70A 8.76A 8.82A 8.88A 8.94A 8.99A NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed Im/s 5000 mm 5000 mm<	Maximum Power (Pmax)	32	3W	327W	331W	335W	339W	343W	347W
Short Circuit Current (lsc) 8.99A 9.04A 9.09A 9.14A 9.19A 9.24A 9.29A Voltage at Maximum Power (Vmp) 37.4V 37.6V 37.8V 38.0V 38.2V 38.4V 38.6V Current at Maximum Power (Imp) 8.64A 8.70A 8.76A 8.82A 8.88A 8.94A 8.99A NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1m/s 5000 mm/s	Open Circuit Voltage (Voc)	45	6V	45.8V	46.0V	46.2V	46.4V	46.6V	46.8V
Voltage at Maximum Power (Vmp) 37.4V 37.6V 37.8V 38.0V 38.2V 38.4V 38.6V Current at Maximum Power (Imp) 8.64A 8.70A 8.76A 8.82A 8.88A 8.94A 8.99A NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1m/s 5 5 5 5 5 5	Short Circuit Current (lsc)	8.9	9A	9.04A	9.09A	9.14A	9.19A	9.24A	9.29A
Current at Maximum Power (Imp) 8.64A 8.70A 8.76A 8.82A 8.88A 8.94A 8.99A NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1m/s	Voltage at Maximum Powe	r (Vmp) 37.	4V	37.6V	37.8V	38.0V	38.2V	38.4V	38.6V
NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1m/s	Current at Maximum Power	(Imp) 8.6	4A	8.70A	8.76A	8.82A	8.88A	8.94A	8.99A
	NOCT: Irradiance 800W/m2	2, Ambient temperature 20°	C, Wind Spee	ed 1m/s					

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings





SunMaster 4

SM400-415W(108)

182mm Cells Mono **PERC with MBB & Half-cut** Technology

Quality Guarantee





Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO ISO 9001-2015/Quality management system ISO 14001-2015/Standards for environmental management system ISO 45001-

2018/International standards for occupational health & safety



Key Features

-0.55%

power attenuation





Select Grade A Crystalline Silicon Solar Cells

30years Power warranty





Higher Power Gains and Lower Losses ₩))



Mechanical Characteristic

Cell type	Monocrystalline PERC 182*91mm			
Number of cells	108(6×18)			Unit: mm
Module dimensions	1722x1134x35mm (67.80x44.65x1.38inch	es)	1134 -	
Weight	20.0kg (44.4lbs)		Barcode (Oil)	RUE
Front cover	3.2mm(0.13inches) tempered glass with AR		Mounting holes	4 F
Frame	Anodized aluminum alloy			
Junction box	≥IP68 & UL		Luber	
Cable	4mm² (0.006inches²), Portrait: 300mm (11.81 Landscape: 1200mm (47.24inches)	nches);	2-\$4 Grounding holes	В
Connector	MC4 or MC4 compatible	1722		
Temperature Characteris	stics			
Nominal Operating Cell Temp	perature (NOCT) 43°C	±2°C	<u>∎</u> <u></u>	32
Temperature Coefficients of	Pmax -0.36	% /°C		
Temperature Coefficients of	Voc -0.28	% /°C	4-7.5×7.5	в
Temperature Coefficients of	lsc 0.05	%/°C	Drainage holes Drainage holes	- 35
Packaging			Rear View	Section A-A
Standard packaging	31pcs	/pallet		
Module quantity per 20'cont	ainer 180	pcs	Specifications in this date change without	asheet are subject to prior notice.
Module quantity per 40'cont	ainer 806p	cs(HQ)		
Electrical Characteristics	at STC			
Maximum Power (Pmax)	400W	405V	V 410W	415W
Open Circuit Voltage (Voc)	37.2V	37.4	/ 37.6V	37.8V
Short Circuit Current (lsc)	13.7A	13.76	A 13.82A	13.88A
Voltage at Maximum Power	(Vmp) 31.0V	31.2\	/ 31.4V	31.6V
Current at Maximum Power (Imp) 12.91A	12.99	A 13.06A	13.14A
Module Efficiency(%)	20.49	20.74	4 21.00	21.25
Operating Temperature			-40°C to +85°C	
Maximum System Voltage			1000V DC/1500V DC	
Fire Resistance Rating		Type 1(in acc	ordance with UL1703)/Class C(IEC61	1730)
Maximum Series Fuse Rating			25A	
STC Irradiance 1000W/m2, C	Cell temperature 25°C, AM1.5; Tolerance of Pm	ax ±3%; Measurement ⁻	Folerance ±3%	
Electrical Characteristics	at NOCT			
Maximum Power (Pmax)	300W	3041	V 308W	312W
Open Circuit Voltage (Voc)	34.2V	34.4	/ 34.6V	34.8V
Short Circuit Current (lsc)	11.10A	11.15/	A 11.2A	11.25A
Voltage at Maximum Power	(Vmp) 28.2V	28.4	/ 28.6V	28.8V
Current at Maurine Damas ([mp] 10.(/A	10 71	10 77 4	10.94.4

NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1m/s

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings





SunMaster 4M

SM450-465W(120)

182mm Cells Mono **PERC with MBB & Half-cut** Technology

Quality Guarantee



450-465W

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO ISO 9001-2015/Quality management system ISO 14001-2015/Standards for environmental management system ISO 45001-

2018/International standards for occupational health & safety



Key Features

(A)

-0.55%

power attenuation





Select Grade A Crystalline Silicon Solar Cells

30years Power warranty





Higher Power Gains and Lower Losses ₩))



Mechanical Characteristic

		U U	0	
Cell type	Monocrystalline PERC 182*91mm			
Number of cells	120(6x20)		1134	Linit: mm
Module dimensions	1908x1134x35mm (75.12x44.65x1.38inches)		1084	onic min
Weight	22kg (48.84lbs)	Bar code	8-9×14	RAS
Front cover	3.2mm(0.13inches) tempered glass with AR coating		Mounting holes ⁶	4
Frame	Anodized aluminum alloy		9 4. B	
Junction box	≥IP68 & UL			
Cable	4mm² (0.006inches²), Portrait: 300mm (11.81inches) Landscape: 1200mm (47.24inches)	2-ф4 Grounding holes	s A A	В
Connector	MC4 or MC4 compatible	808 1208		
Temperature Character	istics			
Nominal Operating Cell Ten	nperature (NOCT) 43°C±2°C	— <u> </u>	↓	
Temperature Coefficients o	f Pmax -0.36% /°C		3 3 9	
Temperature Coefficients o	f Voc -0.28% /°C			
Temperature Coefficients o	f lsc 0.05% /°C	4-7.5×7.5 Drainage holes	16-3.5×8.5 Drainage holes	35
Packaging		Red	ar View	Section A-A
Standard packaging	31pcs/pallet			
Module quantity per 20'con	tainer 186pcs	Spe	cifications in this datashee change without prior	et are subject to notice.
Module quantity per 40'con	ntainer 744pcs(HQ)			
Electrical Characteristic	es at STC			
Maximum Power (Pmax)	450W	455W	460W	465W
Open Circuit Voltage (Voc)	41.4V	41.6V	41.8V	42V
Short Circuit Current (Isc)	13.80A	13.85A	13.90A	13.95A
Voltage at Maximum Power	r (Vmp) 34.6V	34.8V	35.0V	35.2V
Current at Maximum Power	(Imp) 13.01A	13.08A	13.15A	13.22A
Module Efficiency(%)	20.57	21.08	21.03	21.26
Operating Temperature		-40°C	to +85°C	
Maximum System Voltage		1000V D0	C/1500V DC	
Fire Resistance Rating		Type 1(in accordance wit	:h UL1703)/Class C(IEC61730)	
Maximum Series Fuse Rating	g		25A	
STC Irradiance 1000W/m2,	Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%	Measurement Tolerance ±	:3%	
Electrical Characteristic	es at NOCT			
Maximum Power (Pmax)	336W	340W	344W	348W
Open Circuit Voltage (Voc)	38.2V	38.4V	38.6V	38.8V
Short Circuit Current (Isc)	11.18A	11.22A	11.26A	11.33A
Voltage at Maximum Power	r (Vmp) 31.5V	31.7V	31.9V	32.1V
Current at Maximum Power	(Imp) 10.67A	10.73A	10.79A	10.85A

NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1m/s

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawinas





SunMaster 5L

SM525-550W(144)

182mm Cells Mono PERC with MBB & Half-cut Technology

Quality Guarantee



525-550W

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO ISO 9001-2015/Quality management system ISO 14001-2015/Standards for environmental management system ISO 45001-

2018/International standards for occupational health & safety





Key Features





Select Grade A Crystalline Silicon Solar Cells



Process Upgraded

Higher Power Gains and Lower Losses ₩))



Mechanical Characteristic

Cell type	Monocrystalline PER	C 182*91mm						
Number of cells	144(6x24)				084	ι	Jnit: mm
Module dimensions	2279x1134x35mm (89.72x4	4.65x1.38inch	nes)		Bar code			.5
Weight	26kg (57.72)	bs)		.		8-9×14 Mounting holes		R th
Front cover	3.2mm(0.13inches) tempered	glass with AR	coating				2	
Frame	Anodized alumin	um alloy		.]				9
Junction box	≥IP68 & U	L				ťþ		
Cable	4mm² (0.006inches²), Portrait: Landscape: 1300mm	: 300mm (11.81 (51.18inches)	linches);		2¢4 Grounding holes	A A		В
Connector	MC4 or MC4 cor	npatible		2275				2775
Temperature Characteris	tics						40.	
Nominal Operating Cell Temp	perature (NOCT)	43°C	C±2°C		-	+	722	
Temperature Coefficients of F	Pmax	-0.36	5% /°C		•	p.	35	
Temperature Coefficients of V	Voc	-0.28	3% /°C					
Temperature Coefficients of I	sc	0.05	% /°C		4-7.5×7.5 Drainage holes	16-3.5×8.5 Drainage holes		35
Packaging				<u> </u>	Rear	View	-	Section A-A
Standard packaging		31pcs	/pallet					
Module quantity per 20'container 155pcs				Spec	ifications in this do change witho	atasheet are s ut prior notice	ubject to	
Module quantity per 40'container 620pcs(HQ)						0		
Electrical Characteristics	at STC							
Maximum Power (Pmax)		525W	530	W	535W	540W	545W	550W
Open Circuit Voltage (Voc)		49.0V	49.2	2V	49.4V	49.6V	49.8V	50.0V
Short Circuit Current (lsc)		13.74A	13.78	BA	13.82A	13.86A	13.90A	13.94A
Voltage at Maximum Power (Vmp)	40.8V	41.0	V	41.2V	41.4V	41.6V	41.8V
Current at Maximum Power (I	mp)	12.88A	12.93	3A	12.99A	13.05A	13.11A	13.16A
Module Efficiency(%)		20.31	20.	51	20.7	20.89	21.09	21.28
Operating Temperature					-40°C t	o +85°C		
Maximum System Voltage					1000V DC,	/1500V DC		
Fire Resistance Rating				Type 1(in ac	cordance with	UL1703)/Class C(IEC	261730)	
Maximum Series Fuse Rating					25	A		
STC Irradiance 1000W/m2, C	ell temperature 25°C, AM1.5; Tol	erance of Pm	ax ±3%; M	easuremen	t Tolerance ±39	6		
Electrical Characteristics	at NOCT							
Maximum Power (Pmax)		391W	395	W	399W	403W	407W	411W
Open Circuit Voltage (Voc)		45.1V	45.3	3V	45.5V	45.7V	45.9V	46.1V
Short Circuit Current (lsc)		11.13A	11.16	5A	11.19A	11.22A	11.25A	11.28A
Voltage at Maximum Power (Vmp)	37.1V	37.3	3V	37.5V	37.7V	37.9V	38.1V
Current at Maximum Power (I	mp)	10.54A	10.5	9A	10.64A	10.69A	10.74A	10.79A
NOCT: Irradiance 800W/m2,	Ambient temperature 20°C, Wir	nd Speed 1m/	s					
IV Curves								
20					20		600	





Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings





SunMaster 5

SM520-545W(108)

210mm Cells Mono **PERC with MBB & Half-cut** Technology

Quality Guarantee







Standard

All Black

30years

520-545W

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO ISO 9001-2015/Quality management system ISO 14001-2015/Standards for environmental management system ISO 45001-

2018/International standards for occupational health & safety

Key Features

-0.55%

power attenuation





Select Grade A Crystalline Silicon Solar Cells



Process Upgraded



Strong Environmental Adaptability and Great Durability

Mechanical Characteristic

Cell type	Monocrystalline	PERC 210*105mm					
Number of cells	108	(6*18)					Unit: mm
Module dimensions	1960x1303x35mm (7	7.17x51.30x1.38inch	es)		1303 1256		
Weight	26kg (57.72lbs)		Bar code			
Front cover	3.2mm(0.13inches) temp	ered glass with AR	coating		8-9 Mountin	x14 g holes	XTX
Frame	Anodized a	luminum alloy				P B 2	
Junction box	≥IP6	8 & UL				- 9	-
Cable	4mm² (0.006inches²), Po Landscape: 120	ortrait: 300mm (11.81 0mm (47.24inches)	linches);	S S S	4-7 Mounti	B	С
Connector	MC4 or MC	4 compatible					
Temperature Characte	eristics						7777220
Nominal Operating Cell Te	emperature (NOCT)	43°C	C±2°C	-		32	
Temperature Coefficients	of Pmax	-0.36	5% /°C	e			
Temperature Coefficients	of Voc	-0.28	3% /°C	4-7.5×7.5 Drainage holes	_16-3.5× Drainage	B.5 holes	75
Temperature Coefficients	of lsc	0.05	5% /°C				
Packaging				Rea	r View		Section A-A
Standard packaging		31pcs	pallet				
Module quantity per 20'cc	ontainer	24	8pcs	Spec	ifications in this change with	datasheet are : out prior notice	subject to
Module quantity per 40'container 527pcs(HQ)			cs(HQ)		enange men	ourprornotio	
Electrical Characteristi	ics at STC						
Maximum Power (Pmax)		520W	525W	530W	535W	540W	545W
Open Circuit Voltage (Voc	5)	36.9V	37.1V	37.3V	37.5V	37.7V	37.9V
Short Circuit Current (Isc)		18.2A	18.25A	18.30A	18.35A	18.40A	18.45A
Voltage at Maximum Pow	er (Vmp)	30.5V	30.7V	30.9V	31.1V	31.3V	31.5V
Current at Maximum Powe	er (Imp)	17.05A	17.11A	17.16A	17.21A	17.26A	17.31A
Module Efficiency(%)		20.36	20.56	20.75	20.95	21.14	21.34
Operating Temperature				-40°C 1	:o +85°C		
Maximum System Voltage	2			1000V DC	/1500V DC		
Fire Resistance Rating			Type 1(in accordance with	UL1703)/Class C(I	EC61730)	
Maximum Series Fuse Rati	ng			3	AC		
STC Irradiance 1000W/m2	2, Cell temperature 25°C, AM1.	5; Tolerance of Pm	ax ±3%; Measure	ment Tolerance ±3	%		
Electrical Characterist	ics at NOCT						
Maximum Power (Pmax)		390W	394W	398W	402W	406W	410W
Open Circuit Voltage (Voc		34.0V	34.2V	34.4V	34.6V	34.8V	35.0V
Short Circuit Current (Isc)		14.75A	14.79A	14.83A	14.87A	14.91A	14.95A
Voltage at Maximum Pow	er (Vmp)	27.8V	28.0V	28.2V	28.4V	28.6V	28.8V
Current at Maximum Powe	er (Imp)	14.03A	14.08A	14.12A	14.16A	14.20A	14.24A
NOCT: Irradiance 800W/r	n2, Ambient temperature 20°C	C, Wind Speed 1m/	s				

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings





SunMaster 5M

SM580-605W(120)

210mm Cells Mono **PERC with MBB & Half-cut** Technology

Quality Guarantee





580-605W

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO ISO 9001-2015/Quality management system ISO 14001-2015/Standards for environmental management system ISO 45001-2018/International standards for occupational health & safety

Key Features





Select Grade A Crystalline Silicon Solar Cells

-0.55% 30years



Process Upgraded



Higher Power Gains and Lower Losses €M),



Mechanical Characteristic

Cell type	Monocrystalline PER	C 210*105mr	n					
Number of cells	120 (6*20))				1303		Unit: mm
Module dimensions	2172x1303x35mm (85.51x	51.30x1.38ind	ches)		Barcode		1	onic. min
Weight	28.5kg (63.2	7lbs)						
Front cover	3.2mm(0.13inches) tempered	glass with A	R coating			8-9×14 Mounting h	oles 4	
Frame	Anodized alumin	num alloy			o			
Junction box	≥IP68 & U	IL				4-7×10	-	9 7
Cable	4mm² (0.006inches²), Portrait Landscape: 1300mm	: 300mm (11. 1 (51.18iinches	81inches); s)	2172 14.000 4.000	2¢4 Grounding holes		·	B C
Connector	MC4 or MC4 cor	mpatible			.			
Temperature Characteristi	ics				<u> </u>	P		
Nominal Operating Cell Tempe	erature (NOCT)	43	°C±2°C		•			
Temperature Coefficients of Pr	max	-0.	36% /°C		•		Å .	
Temperature Coefficients of Vo	oc	-0.	28% /°C		4-7.5×7.5 /Drainage holes	16-3.5×8.5 Dratnage hole	↓ ↓	1 35
Temperature Coefficients of Iso	с	0.0	05% /°C	1[
Packaging					Rear	View		Section A-A
Standard packaging		31p	cs/pallet					
Module quantity per 20'contain	ner	1	55pcs		Spec	ifications in this d change withd	latasheet ar out prior noti	e subject to ce.
Module quantity per 40'contai	ner	527	/pcs(HQ)					
Electrical Characteristics o	at STC							
Maximum Power (Pmax)		580W	585V	V	590W	595W	600W	605W
Open Circuit Voltage (Voc)		40.8V	41.01	V	41.2V	41.4V	41.6V	41.8V
Short Circuit Current (lsc)		18.25A	18.30	A	18.35A	18.40A	18.45A	18.50A
Voltage at Maximum Power (V	mp)	33.9V	34.1	V	34.3V	34.5V	34.7V	34.9V
Current at Maximum Power (Im	(qr	17.11A	17.16	A	17.21A	17.25A	17.30A	17.34A
Module Efficiency(%)		20.49	20.6	7	20.85	21.02	21.2	21.38
Operating Temperature					-40°C t	o +85°C		
Maximum System Voltage					1000V DC,	/1500V DC		
Fire Resistance Rating			Т	ype 1(in acc	ordance with	UL1703)/Class C(IE	C61730)	
Maximum Series Fuse Rating					30	AC		
STC Irradiance 1000W/m2, Ce	ell temperature 25°C, AM1.5; To	lerance of P	max ±3%; Me	easurement ⁻	Tolerance ±39	%		
Electrical Characteristics o	at NOCT							
Maximum Power (Pmax)		435W	439\	V	443W	447W	451W	455W
Open Circuit Voltage (Voc)		38.4V	38.6	V	38.8V	39.0V	39.2V	39.4V
Short Circuit Current (lsc)		14.78A	14.82	A	14.86A	14.90A	14.94A	14.98A
Voltage at Maximum Power (V	mp)	31.4V	31.61	V	31.82V	32.0V	32.2V	32.4V
Current at Maximum Power (Im	(qr	13.86A	13.90	A	13.94A	13.97A	14.01A	14.05A

NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1m/s

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings





SunMaster 6 SM640-665W(120)

210mm Cells Mono **PERC with MBB & Half-cut** Technology

Quality Guarantee





640-665W

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO ISO 9001-2015/Quality management system ISO 14001-2015/Standards for environmental management system ISO 45001-

2018/International standards for occupational health & safety

Key Features





Select Grade A Crystalline Silicon Solar Cells

-0.55% 30years



Process Upgraded

Higher Power Gains and Lower Losses ₩))



Mechanical Characteristic

Cell type	Monocrystalline I	PERC 210*105mm					
Number of cells	132 (6*22)		L	1303		nit: mm
Module dimensions	2384x1303x35mm (93	.86x51.30x1.38incl	nes)		1256	0	
Weight	31.5kg (á	59.93lbs)			•		
Front cover	3.2mm(0.13inches) tempe	red glass with AR	coating		8-9×14		
Frame	Anodized alu	uminum alloy		e	Productioning in turned	-8	
Junction box	≥IP68	& UL				9	- 7 -
Cable	4mm² (0.006inches²), Por Landscape: 1400	trait: 300mm (11.81 mm (55.12iinches)	linches);		4-7×10 Mounting holes	В	С
Connector	MC4 or MC4	compatible					
Temperature Character	ristics				\$		7770
Nominal Operating Cell Ter	mperature (NOCT)	43°0	C±2°C	- <u>-</u> •		N N	
Temperature Coefficients c	of Pmax	-0.30	5% /°C		Â	Â	
Temperature Coefficients of	of Voc	-0.28	3% /°C	A-7.5×7.5 Drainage holes	16-3.5×8.5 Drainage holes		75
Temperature Coefficients c	of Isc	0.05	5% /°C	V			
Packaging				Rear	View		Section A-A
Standard packaging		31pcs	/pallet				
Module quantity per 20'cor	ntainer	124pcs Specifications in this datasheet are subject to change without prior notice.					
Module quantity per 40'cor	ntainer	527pcs(HQ)					
Electrical Characteristic	cs at STC						
Maximum Power (Pmax)		640W	645W	650W	655W	660W	665W
Open Circuit Voltage (Voc)		45.1V	45.3V	45.5V	45.7V	45.9V	46.1V
Short Circuit Current (Isc)		18.26A	18.31A	18.36A	18.41A	18.46A	18.51A
Voltage at Maximum Powe	er (Vmp)	37.3V	37.5V	37.7V	37.9V	38.1V	38.3V
Current at Maximum Power	r (Imp)	17.16A	17.21A	17.26A	17.31A	17.36A	17.41A
Module Efficiency(%)		20.6	20.76	20.92	21.09	21.25	21.41
Operating Temperature				-40°C to	⊳ +85°C		
Maximum System Voltage				1000V DC/	(1500V DC		
Fire Resistance Rating			Type 1	(in accordance with	UL1703)/Class C(IE	C61730)	
Maximum Series Fuse Ratin	Ig			30	A		
STC Irradiance 1000W/m2,	, Cell temperature 25°C, AM1.5	; Tolerance of Pm	ax ±3%; Measure	ement Tolerance ±3%	6		
Electrical Characteristic	cs at NOCT						
Maximum Power (Pmax)		480W	484W	488W	492W	496W	500W
Open Circuit Voltage (Voc)		41.5V	41.7V	41.9V	42.1V	42.3V	42.5V
Short Circuit Current (Isc)		14.79A	14.83A	14.87A	14.91A	14.95A	14.99A
Voltage at Maximum Powe	er (Vmp)	33.9V	34.1V	34.3V	34.5V	34.7V	34.9V
Current at Maximum Power	r (Imp)	14.16A	14.20A	14.23A	14.27A	14.30A	14.33A

NOCT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1m/s

IV Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings





405-670W

Shingled PV Module

Based on M10-210mm wafer, best choice for ultra-large power plants. Advanced module technology delivers superior module efficiency. Globally validated bifacial energy yield. High module quality ensures long-term reliability.

\$



Super Performance & Stable Returns Low hot spot & anti-PID, to ensure module operation optimally

Various Application Scenarios Strong weather resistance, easy installation in deserts, coastal areas, mountains and various roofs



210+10BB+half-cell, higher power generation with the same installation

Comprehensive Products &System Certificates



Module	Maximum Powoer	Size / Weighti
SM-SPSG-405~425M12	405-425W	1808*1086*30mm/21kg
SM-SPSG-495~520M12	495-520W	2275*1086*35mm/26.1k
SM-SPSG-535~560M12	535-560W	2384*1086*35mm/27kg
SM-SPDG-530~555M12	530~555W	2384*1092*35mm/32.2
SM-SPDG-585~610M12	585~610W	2185*1303*35mm/35.5
SM-SPDG-645~670M12	645-670W	2384*1303*35mm/38.3



SunMaster 5 360-550W

Bifacial PV Module

Based on M10-210mm wafer, best choice for ultra-large power plants. Advanced module technology delivers superior module efficiency. Globally validated bifacial energy yield. High module quality ensures long-term reliability.





The PERC techno of rear surface recombination by a combination dielectric surface passivation and redu miconductor contact area whil usly increasing rear surface reflection l Special frame design with anti-fouling patent 155-degree angle, excellent anti-fouling pe





9 busbar cell technology electric charges, so there would be less resistance losses and more emitted electrons can be captured, thus it can increase and Half-cut cell technology Through reducing length of cell spacing, two half-cut cells can provide higher electric current, thus enhance 3% of power output. The output of tw 9 bus-bar half-cut cells is even higher than one 12 bus-bar full cell.

Comprehensive Products &System Certificates



SM-DG-440~465M6

SM-DG-525~550M8

Module	Maximum Powoer
SM-DG-360~385M6	360-385W

440-465W

525-550W





5%-25% more

Bifacial cell technology ital light reflections b



Split module design



Ultra high strength frame

Specially designed for "Jethru Du Pro" bifacial dual-glass series, passed 7200 Pa (front) mechanical load test, reducing shading with no C side design for Split module design short frame. (Note: "120 Cells series)



1500V DC



Customized Size

Mono-crystalline 10-360W

Quality Guarantee

- 10-year product workmanship warranty
- 10-year guarantee for 90% rated power
- 25-year guarantee for 80% rated power



+3%

Excellent power generation performance Guaranteed 0~+3% positive rated power tolerance ensures,more power generation every day



Long weather resistance Excellent anti-PID(Potential Induced Degradation), Certified in fireproofing for safety.



Lower temperature coefficient, Improved temperature coefficient decreases power loss in the high temperature application.



Stable mechanical performance Passed rigorous hail test, Withstands 5400Pa snow

and 2400Pa wind loads.

Superior quality control

ISO 9001:2015 Quality Management System 100% EL and appearance inspection



Low-light Performance Advanced glass and solar cell surface texturing allow for excellent performance in low-light environments.



Module	SM10M	SM20M	SM30M	SM40M	SM50M	SM60M	
Peak Power Watts(Pmax/W)	10	20	30	40	60	60	
Power Output Tolerance(W)	0~+3%						
Maximum Power Voltage(Vmp/V)	18.1	18.1	18.4	18.6	18.6	18.6	
Maximum Power Current(Imp/A)	0.55	1.10	1.63	2.15	2.69	3.23	
Open Circuit Voltage(Voc/V)	22.1	22.1	22.6	22.8	22.8	22.8	
Short Circuit Current(Isc/A)	0.60	1.19	1.76	2.32	2.90	3.48	
Module Dimension(mm)	496*190*25	496*350*25	656*350*25	425*665*30	500*665*30	600*665*30	
Module Weight(Kg)	1.2	2.0	2.5	3.4	4.0	4.8	

55W~80W ELECTRICAL DATA(STC)

Module	SM70M	SM80M	SM90M	SM100M	SM110M	SM120M	
Peak Power Watts(Pmax/W)	70	80	90	100	110	120	
Power Output Tolerance(W)	0 ~ +3%						
Maximum Power Voltage(Vmp/V)	18.6	18.6	18.4	18.4	18.6	18.0	
Maximum Power Current(Imp/A)	3.76	4.30	4.89	5.43	5.91	6.67	
Open Circuit Voltage(Voc/V)	22.8	22.8	22.6	22.6	22.8	22.0	
Short Circuit Current(Isc/A)	4.06	4.65	5.28	5.87	6.39	7.1	
Module Dimension(mm)	650*665*30	770*665*30	870*665*30	1000*665*30	1000*665*30	1120*665*30	
Module Weight(Kg)	5.2	5.7	6.5	7.5	7.5	8.2	

85W~110W ELECTRICAL DATA(STC)

Module	SM150M	SM160M	SM180M	SM200M	SM250M	SM270M	
Peak Power Watts(Pmax/W)	150	160	180	200	250	270	
Power Output Tolerance(W)	0 ~ +3%						
Maximum Power Voltage(Vmp/V)	18.2	18.3	18.4	18.6	31	32	
Maximum Power Current(Imp/A)	8.25	8.75	9.79	10.8	8.07	8.44	
Open Circuit Voltage(Voc/V)	22.3	22.4	22.4	22.6	37.2	38.0	
Short Circuit Current(Isc/A)	8.7	8.8	10.44	11.5	8.94	9.8	
Module Dimension(mm)	1470*660*30	1470*660*30	1470*660*30	1580*808*35	1640*980*35	1640*992*35	
Module Weight(Kg)	10.5	10.5	10.5	14.2	16.2	17.5	

120-280W ELECTRICAL DATA(STC)

Module	SM280M	SM300M	SM320M	SM330M	SM350M	SM360M	
Peak Power Watts(Pmax/W)	280	300	320	330	350	360	
Power Output Tolerance(W)	0 ~ +3%						
Maximum Power Voltage(Vmp/V)	32	32	36.5	36.7	36.9	37.1	
Maximum Power Current(Imp/A)	8.75	9.38	8.77	8.99	9.49	9.7	
Open Circuit Voltage(Voc/V)	38.0	39.0	43.8	43.9	44.3	44.5	
Short Circuit Current(Isc/A)	9.8	9.9	10.52	10.55	10.62	10.71	
Module Dimension(mm)	1640*992*35	1640*992*35	1956*992*35	1956*992*35	1956*992*35	1956*992*35	
Module Weight(Kg)	17.5	17.5	19.5	19.5	19.5	19.5	

STC:Irradiance 1000W/m2,Cell Temperature 25°C,Air Mass AM1.5.

*Measuring tolerance: ±3%.

Specifications in this datasheet are subject to change without prior notice.