

Nº: Lange

SongSolar

Zusammenarbeit für die zukünftige Energie

all it is the second

EAN ENERGY

www.solar3s.com

Let' See Who We Are?

Solar3s, as a leading supplier in New Energy, our prioritized goal is to keep developing and producing high quality and high efficiency product





[As a leading Solar New Energy Supplier from China, our prioritized goal is to keep developing and producing high

quality and high efficiency product OEM ODM]

3S – Standard & Service & Solution











PRODUCT CATALOG

- 1 : Solar Panel
- 2: Wind-Solar Hybrid System
- 3 : Micro-Inverter
- 4 : Energy Storage Battery
- 5 : Car Charger

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About Us

3S Group - Solar3s - Founded by Mr. Tao Song with a startup of manufacturing and trading in Clothing and Apparels since 1998, Over 20 years flourishing development, Solar energy came into our second territories in 2018, A widely recognized sunrising engagement, we are providing professional, reliable and trustful solar products and solar solution, The world needs to be powered Clean and Natural, we are right here working with drive and enthusiasm.

Our Solution



Wind-Solar Hybrid System





Solar Panel



Solar module features



Multi Busbar Technology Better light trapping and current collection to improve, Effectively improve the module's power output and reliability。

Higher output power dule output power increased to 505W. M



Low light performance The special solar cell technology has excellent low light power generation performance.

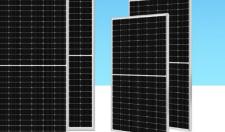
Better resistance to hot spots The use of half cell structure and special circuit design is less shade loss, with better temperature coefficient and thermal spot resistance ability



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Adaptability to harsh environments High performance materials are suitable for coastal, farm, desert and other harsh environmental conditions, glass surface is anti-reflective and easy to clean, minimizing power generation losses caused by dirt and dust.

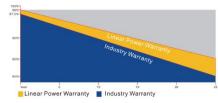




First-class Quality Assurance

• 10-year warranty for material and technology

· 25-year linear power output warranty



Module Picture		Mechanical Dia	grams			Spe	cifications	
						Solar	Cell(Type/Size)	MONO(182mm)
		1134±2		.100	35+1	Solar	Cells Number	120pcs(6*10)
					3	Dimo	nsions	1909×1134×35mm
				1				
			Tel.	-		Weig	ht	23.9Kg/Pcs
			nting hole(10:1)			Struc	ture 3.2 Glas	s + EVA film + Back
		0F2		e.4.2	9 9	Fram	e Anodi:	ed Aluminum Alloy
	MSD450M-120	p crow	inding Holes		9 8	Junc	tion Box IP6	103*Bypass Diode
					Units.	Cable	e Cross d Omm? (d)300mm/(-)400mm
	ono Half-cut Single/Double Glass Module		unting Holes laces		Units:	3000	011 3120	
	30-455/MB Series		1	1064	TF			00Pa/Back 2400Pa
			Draining holes 8 places	Label	10	Pack	ing Number	31Pcs/Pallet
	NTRODUCTION					Pack	ing Volume	2.834Cbm/Pallet
	IONO half-cut single / double glass module, assembled with ulti-busbar PERC technique and half-cut structure, which can not only	PS Frame color and cable length can be customize	ed.			40'H	Q Container	744Pcs
	bsorb the energy from the front of the module, but also absorb the effected light and the scattered light from the back, offer the advantages	Electrical Parameters at STC						
	f higher power output, reduce shading effect on the energy generation, nhance the mechanical load bearing capacity as well.	Module Type	MSD430P	MSD435	P MSD440P	MS	0445P MSD450P	MSD455P
		Rate Maximum Power(Pmax/W	V) 430	435	440		445 450	455
	LCOE save 6-8%	Module Efficiency(%)	19.90	20.10	20.30	1	20.60 20.80	21.10
		Open Circuit Volatge(Voc/V)	40.65	40.80	40.95	4	41.10 41.25	41.40
	5% Saving logistics cost 5% Saving cable cost	Short Circuit Current(Isc/A)	13.59	13.67	13.74		13.82 13.89	13.97
	5% Saving bracket cost [9% Saving labor cost	Voltage at Pmax(Vmp/V)	33.89	30.09	34.28		34.48 34.67	34.87
		Current at Pmax(Imp/A)	12.69	12.77	12.84		12.91 12.98	13.05
		Power Tolerance				~+5w		
		Temperature Coefficent of Isc				046%°C		
		Temperature Coefficent of Voc				276%°C		
		Temperature Coefficent of Pma STC	X	to a state		350%°C		
					iance 1000W/m ² Ce			
		Remark: Electrical data in this catalog		a single module, an	d it's not part of the offer	It only serve		
		Electrical Parameters at NOC					Operating Conditions	
		Module Type Rate Maximum Power(Pmax/W)	MSD430P MSD		MSD445P MSD450F		Operating Temperature	-40~+85°C 1500VDC
First-class Quality Assurance	Comprehensive Certificates		327 33		336 340	343	Maximum System Voltage	
		Open Circuit Voltage(Voc.V)	38.15 38.		38.53 38.65	38.77	NOCT	45±2°C
 10-year warranty for material and technology 	 IEC61215, IEC61730 	Short Circuit Current(Isc/A))	10.91 10.		11.03 11.08	11.12	Fireproof Performance	Glass C
 25-year linear power output warranty 	 ISO9001:2015 Quality management systems 	Voltage at Pmax(Vmp/V)	31.89 32		32.35 32.51	32.67	Maximum Series Fuse	25A
100%	. , . , ,	Currrnt at Pmax(Imp/A)	10.26 10.		10.40 10.46	10.51	Temperature Coefficient of	
100% 98% 97.5%	 ISO45001:Environmental management systems 	NOCT: Irradiance 800W/m Ambient	Temperature 20°C	Wind at 1m/S AM1	.5		Temperature Coefficient of	lsc +0.046%/K
	 ISO45001:2018 Occupational health and safety 	Characteristics						
90%- Industr	management systems	Current Voltage Curve MSD450P		Power Volta	ge Curve MSD450P		Current Voltage Curr	o MSD450P
Warranty		14		550	000Wim ²		14	
85%-	(F 🔄 🚵	10 B30W0m²		400 8		_	12 10°C	100
80%-		≤ ⁸ 000//m ²		\$ 300 - 2	X046m² X046m²		8 40°C 65°C	
Year 5 10 15 20 25		E 400Wim*		250 200 150	1	H	a di c	
📒 Linear Power Warranty 📲 Industry Warranty		5 2 200Wimi		d 100			2 C C	
		0 10 20 30	40	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	20 30	10	0 10 2	30 40
		Voltage(V)			Voltage(V)		Voltag	⇒ (V)
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Specifications



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First-class Quality Assurance

100% 98% 97.5%

85

• 25-year linear power output warranty

• 10-year warranty for material and technology

Linear Power Warranty Industry Warranty

INTRODUCTION MOTe names tends to the set of th LCOE save 6-8%

480-505/MB Series

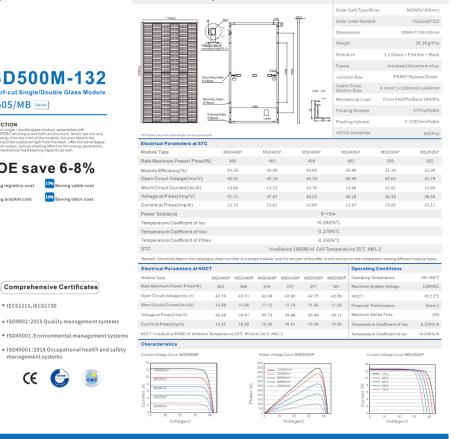
Saving logistics cost Saving cable cost Saving bracket cost

Comprehensive Certificates

Œ 🕞

• IEC61215, IEC61730

MSD500M-132



Mechanical Diagrams

Module Picture Mechanical Diagrams Specifications olar Cell(Type/Size) MONO(182mm) 144pcs(6*24) Solar Cells Number 2279×1134×35mm 28.5Kg/Pcs Weight 3.2 Glass + EVA film + Back Þ Frame Anodized Aluminum Alloy **MSD540M-144** Grounding Holes 6 Places Junction Box IP6883*Bypass Diode Mounting holes I places for <u>Nextracker</u> Mounting Holes <u>8 Places</u> Cable Cross Section Size 4.0mm²,(+)300mm/(-)400mm Mono Half-cut Single/Double Glass Module From ſ 525-550/MB Series 31Pcs/Pallet Packing Number Draining 8 places 3.372Cbm/Palle INTRODUCTION 40'HQ Contain 620Pcs ro the energy from the front of the module, but also absorb the ted light and the scattered light from the back, offer the advantages her power output, reduce shading effect on the energy generation, net the mechanical load bearing capacity as well. Electrical Parameters at STC lodule Type Rate Maximum Power(Pmax/W) 525 530 535 540 545 550 LCOE save 6-8% Module Efficiency(%) Open Circuit Volatge(Voc/V) 21.30 49.95 48.95 49.55 49.75 49.15 49.35 Saving logistics cost Saving cable cost Short Circuit Current(Isc/A) 13.82 13.89 13.74 Is Saving bracket cost Voltage at Pmax(Vmp/V) 41.27 41.45 41.62 41.97 41.10 41.80 Current at Pmax(Imp/A) 12.78 12.85 12.91 12.98 13.05 Power Tolerance 0~+5w Temperature Coefficent of Isc Temperature Coefficent of Voc +0.046% -0.276%°C Temperature Coefficent of Pmax -0.350%°C STC Irradiance 1000W/m² Cell Temperature 25°C AM1.5 Remark: Electrical data in this catalogue does not refer to a single module, and it's not part of the offer. It only set Electrical Parameters at NOCT Operating Condition Module Type MSD525P MSD530P MSD535P MSD540P Oneration Temperature 40~+85*0 Rate Maximum Power(Pmax/W) 396 400 404 407 411 414 **Comprehensive Certificates** 1500VDC First-class Quality Assurance Open Circuit Voltage(Voc.V) 46.00 46.13 46.26 46.38 46.50 46.63 NOCT 45±2°C Short Circuit Current(Isc/A)) 10.95 10.99 11.03 11.08 11.12 11.17 • 10-year warranty for material and technology • IEC61215, IEC61730 Fireproof Perform Glass C Voltage at Pmax(Vmp/V) 38.35 38.55 38.76 38.95 39.16 39.31 Maximum Series Fuse 25A • 25-year linear power output warranty
 10.33
 10.38
 10.43
 10.46
 10.50
 10.53
 ISO9001:2015 Quality management systems Currrnt at Pmax(Imp/A) Temperature Coefficient -0.276%/K 100% 98% 97.5% • ISO45001:Environmental management systems NOCT: Irradiance 800W/m² Ambient Temperature 20°C Wind at 1m/S AM1.5 Temperature Coefficient of Is-+0.046%/K Characteristics ISO45001:2018 Occupational health and safety management systems 909 85% Œ 😂 Linear Power Warranty 📕 Industry Warranty





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Prost-close Charley Asso

MSD600M-156 Mono Half-cut Single/Double Glass Module

580-600/MB Series

INTRODUCTION MONO half-cut single / double glass module, assembled with multi-busbar FERC schnique and half-cut structure, which can not only abaot the energy from the front of the module, but also abaot the



Mechanical Dia	agram	5			Spe	cifications	
1134a2 3	h BLS		100.	Nr. 4	Solar	Cell(Type/Size)	MONO(182mm)
			12	Ť	Solar	Cells Number	156pcs(6*26)
	₩-1				Dimer	isions	2464×1134×35mm
Entro marco	ntin hole 10:1				Weigt	at	30.0Kg/Pcs
	Å				Struct	ure 3.2 GI	ass + EVA film + Back
	<u>ور</u>					Ano	dized Aluminum Alloy
	anding Holes				Juncti	on Box IF	e6883*Bypass Diode
	unting holes I		۲I	Units: r	Cable	Cross 4.0mm2	(+)280mm/(-)400mm
	stracker				Secur	11 3120	5400Pa/Back 2400Pa
	unting Holes laces	1084		l ir			31Pcs/Pallet
	Draining holes 8 places		Label	144	5	ng Number	
	o paces		Laber	0		ng Volume	3.542Cbm/Pallet
PS: Frame color and cable length can be customiz	red				40'HC	Container	590Pcs
Electrical Parameters at STC							
Module Type	MSD58	0P	MSD585P		MSD590P	MSD595P	MSD600P
Rate Maximum Power(Pmax/V	V) 580		585		590	595	600
Module Efficiency(%)	20.7)	20.90		20.10	21.30	21.50
Open Circuit Volatge(Voc/V)	53.5)	53.65		53.80	53.95	54.10
Short Circuit Current(Isc/A)	13.8	2	13.89		13.96	14.03	14.10
Voltage at Pmax(Vmp/V)	44.9)	45.07		45.22	45.39	45.53
Current at Pmax(Imp/A)	12.9	2	12.98		13.05	13.11	13.18
Power Tolerance				()~+5₩		
Temperature Coefficent of Isc				+0.	.046%°C		
Temperature Coefficent of Voc				-0.	276%°C		
Temperature Coefficent of Pma	1X			-0.	350%°C		
STC			Irradiance	1000W/m² Ce	ll Temperati	ure 25°C AM1.5	
Remark: Electrical data in this catalog	gue does not ref	er to a single m	odule, and it's no	t part of the offer	. It only serves	for the comparison among	different module types.
Electrical Parameters at NOC	т					Operating Conditio	ns
Module Type	MSD580P	MSD585P	MSD590P	MSD595P	MSD600P	Operating Temperature	-40~+85°C
Intelligence Frankling		-				Mantena Aprila 1110	
the second second		10.00	11.12	10.00	-		
the first of a first to be	1000	1.00	11.12		140	Support Indonesia	iner.
1002 1410000		1000	11.12		1000	10111-101 (0.1011-0.101	100

Comprehensive Devolution

ROUGH (01176)

and the second se







40-450 Watt

High efficiency monocrystalline silicon solar modules

- -

0~+3% tolerance

ISO9001:2008, ISO14001:2004, OHSAS18001 Factory certificates IEC61215, IEC61730, UL 1703 Product certificates

Solar module features



PERC 182 cells

Better capability of current collection, larger area of power generation, nice appearance, more suitable for installation on the roof.



High output power

Using PERC battery structure technology (Low resistance characteristics), output power of 60pcs monocrystalline cells reaches Max 450W (Highest Conversion efficiency to 20.9%)



Low light performance

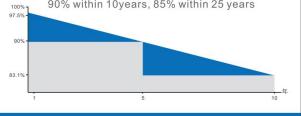
Using excellent glass and texture surface making of solar cell, outstanding performance can be obtained in low light condition.



Adaptability of harsh environment

Corrosion tests have certified in high salt fog and high ammonia environment.

Guaranteed output power 90% within 10years, 85% within 25 years

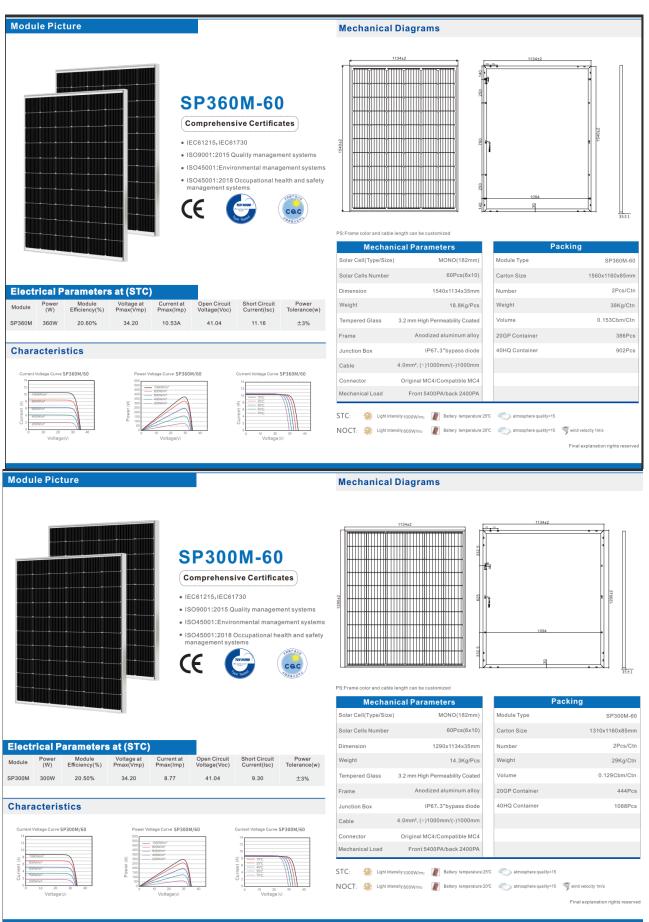




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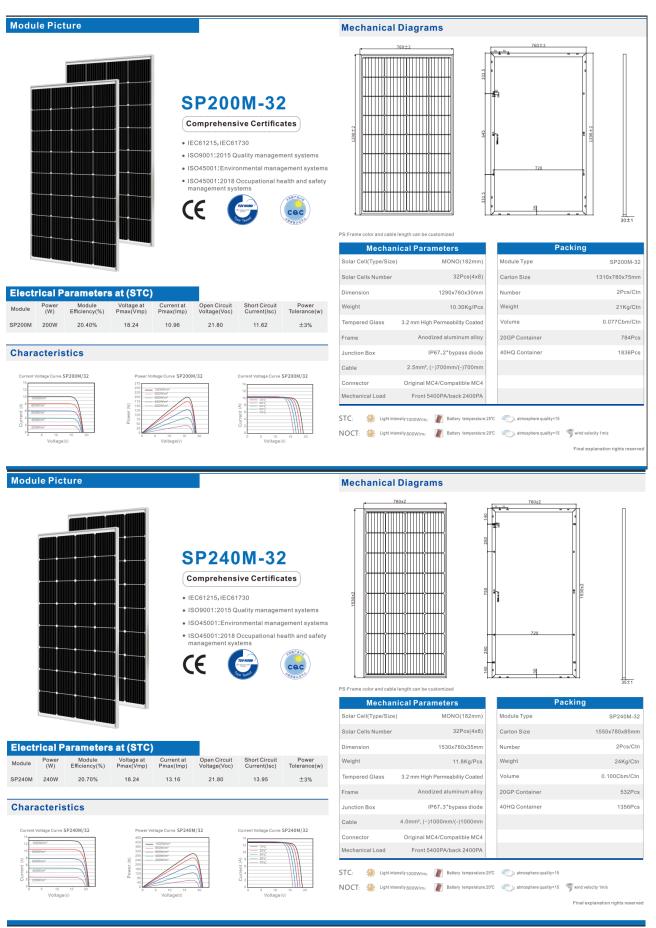
Module Picture Mechanical Diagrams 1134±2 **SP450M-60** Comprehensive Certificates • IEC61215, IEC61730 ISO9001:2015 Quality management systems ISO45001:Environmental management systems ISO45001:2018 Occupational health and safety management systems Œ Mechanical Parameters Packing Solar Cell(Type/Size) MONO(182mm) Module Type SP450M-60 Solar Cells Number 60Pcs(6x10) Carton Size 1930x1160x85mm 1909x1134x35mm Number 2Pcs/Ctr **Electrical Parameters at (STC)** Dimension Module Power Module Voltage at (W) Ef ciency(%) Pmax(Vmp) Open Circuit Short Circuit Power Voltage(Voc) Current(lsc) Tolerance(w) Weight 46Kg/Ctn Current at Pmax(Imp) Weight 22.9Kg/Pcs Tempered Glass 3.2 mm High Permeability Coated Volume 0.190Cbm/Ctn SP450M 450W 20. 80% 34. 20 13.16 41.04 13.95 ±3% Anodized aluminum alloy 20GP Container 316Pcs Frame IP67、3*bypass diode 40HQ Container 736Pc: Characteristics Junction Box 4.0mm², (+)1000mm/(-)1000mm Cable Original MC4/Compatible MC4 Connector Mechanical Load Front 5400PA/back 2400PA STC: 🎇 Light intensity1000W/m2 🖉 Battery temperature:25°C 💨 atmosphere quality=15 NOCT: 🌞 Light intensity 800W/m2 🖉 Battery temperature:20°C 🦚 atmosphere quality=15 🚿 wind velocity 1m/s **Module Picture Mechanical Diagrams SP400M-54** Comprehensive Certificates • IEC61215, IEC61730 ISO9001:2015 Quality management systems ISO45001:Environmental management systems ISO45001:2018 Occupational health and safety Œ Mechanical Parameters Packing Solar Cell(Type/Size) MONO(182mm) Module Type SP400M-54 54Pcs(6x9) Solar Cells Number Carton Size 1745x1160x85mm **Electrical Parameters at (STC)** Dimension 1725x1134x35mm Number 2Pcs/Ctn Module Voltage at Current at Open Circuit Short Circuit Efficiency(%) Pmax(Vmp) Pmax(Imp) Voltage(Voc) Current(Isc) Module Power (W) Power Tolerance(w) Weight Weight 43Kg/Ctn 21.3Kg/Pcs 0.172Cbm/Ctn Tempered Glass 3.2 mm High Permeability Coated Volume SP400M 400W 20.70% 30.78 13.00 37.02 13.78 ±3% Anodized aluminum alloy 20GP Container 340Pcs Frame **Characteristics** 40HQ Container 810Pcs Junction Box IP67、3*bypass diode Cable 4.0mm², (+)1000mm/(-)1000mm e SP400M/32 ve SP400M/32 SP400M/32 Original MC4/Compatible MC4 Connector Mechanical Load Front 5400PA/back 2400PA STC: 🐇 Light intensity 1000W/m2 🕼 Battery temperature:25°C 🐑 atmosphere quality=15 NOCT: 🌞 Light intensity 800W/mz 🖉 Battery temperature:20°C 🐑 atmosphere quality=15 🚿 wind velocity 1m/s Final explanation rights rese







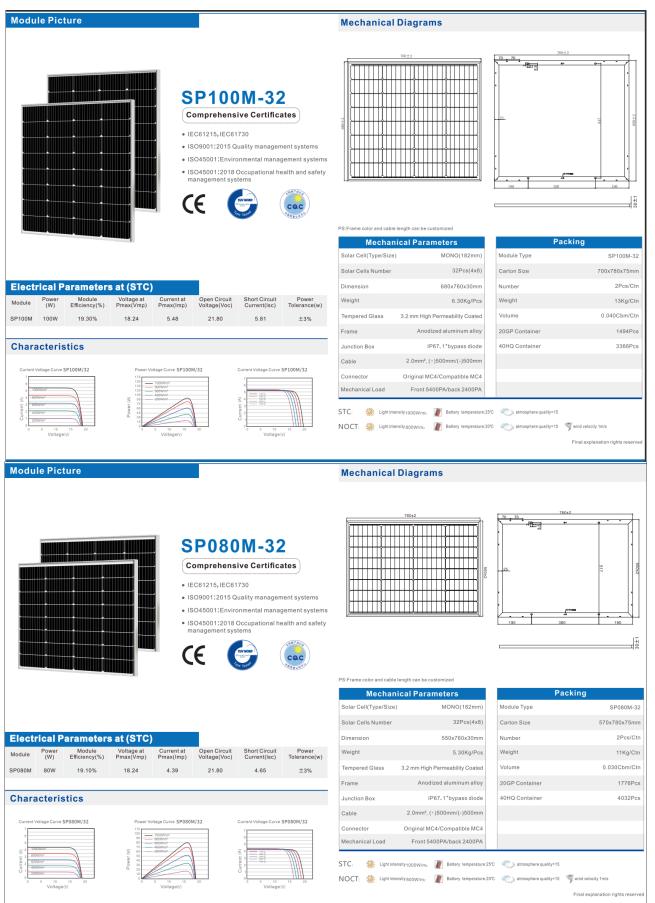






Module Picture	Mechanical Diagrams	
<image/> <section-header></section-header>	7642 7542 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0<	30±1
	Solar Cells Number 32Pcs(4x8) Carton Size 1060x780x	75mm
Electrical Parameters at (STC)	Dimension 1040x760x30mm Number 2Pc	cs/Ctn
Module Power Module Voltage at Pmax/Vmp) Current at Pmax/Vmp) Open Circuit Short Circuit Power Module (W) Efficiency(%) Pmax/Vmp) Pmax(Imp) Voltage(Voc) Current(Isc) Tolerance(w)	Weight 8.30Kg/Pcs Weight 17K	g/Ctn
SP160M 160W 20.20% 18.24 8.77 21.80 9.30 ±3%	Tempered Glass 3.2 mm High Permeability Coated Volume 0.062Cbr	m/Ctn
	Frame Anodized aluminum alloy 20GP Container 98	84Pcs
Characteristics	Junction Box IP67.2*bypass diode 40HQ Container 228	80Pcs
Current Voltage Curve SP160M/32 Power Voltage Curve SP160M/32 Current Voltage Curve SP160M/32	Cable 2.5mm ² , (+)700mm/(-)700mm	
Constrained by the second seco	Connector Original MC4/Compatible MC4 Mechanical Load Front 5400PA/back 2400PA STC:	
		reserved
Module Picture	Mechanical Diagrams	
Module Picture Image: Strate	Mechanical Diagrams	80012
SP120M-32 Comprehensive Certificates • IEC61215,IEC61730 • ISO45001:Environmental management systems • ISO45001:Environmental management systems • ISO45001:2018 Occupational health and safety	70x7 10x7 0 0	1400 8 9 0 1400 1400
SP120M-32 Comprehensive Certificates I ISO45001:2015 Quality management systems I ISO45001:2018 Occupational health and safety	70x2 10x2 0 0	1400 8 9 0 1400 1400
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Module

SP060M

Module

112

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Module Picture Mechanical Diagrams SP060M-32 **Comprehensive Certificates** IEC61215, IEC61730 ISO9001:2015 Quality management systems ISO45001:Environmental management systems ISO45001:2018 Occupational health and safety nanagement system: Œ PS:Erame color and cable length can be customized Mechanical Parameters Packing Solar Cell(Type/Size) MONO(182mm) Module Type SP060M-32 Solar Cells Number 32Pcs(4x8) Carton Size 450x780x75mm Electrical Parameters at (STC) 2Pcs/Ctn 430x760x30mm Dimension Number Module Voltage at Efficiency(%) Pmax(Vmp) Current at Pmax(Imp) Open Circuit Voltage(Voc) Short Circuit Current(Isc) Power Tolerance(w) Weight Weight 9Kg/Ctn Power (W) 4.30Kg/Pcs 0.026Cbm/Ctr 3.2 mm High Permeability Coated Volume Tempered Glass 60W 18.30% 18.24 3.29 21.80 3.49 ±3% Anodized aluminum alloy 2600Pcs 20GP Container Frame Characteristics Junction Box IP67、1*bypass diode 40HQ Container 5340Pc: Cable 2.0mm², (+)500mm/(-)500mm e SP060M/32 ant Voltage Curve SP060M/32 SP060M/33 Original MC4/Compatible MC4 Connector Mechanical Load Front 5400PA/back 2400PA STC: 🎇 Light intensity 1000W/m2 🖉 Battery temperature:25°C 🐑 atmosphere quality=15 NOCT: 🌞 Light intensity 800W/m2 🖉 Battery temperature:20°C 🧼 atmosphere quality=15 🚿 wind velocity 1m/s Module Picture **Mechanical Diagrams** 1 li li SP050M-32 Comprehensive Certificates <u>I</u> 1 IY • IEC61215, IEC61730 ISO9001:2015 Quality management systems ISO45001:Environmental management systems ISO45001:2018 Occupational health and safety management systems Œ PS:Frame color and cable length can be cust **Mechanical Parameters** Packing Module Type Solar Cell(Type/Size) MONO(182mm) SP050M-32 Solar Cells Number 32Pcs(2x16) Carton Size 780x430x170mm **Electrical Parameters at (STC)** 5Pcs/Ctn Dimension 670x400x25mm Number Module Efficiency(%) Voltage at Pmax(Vmp) Current at Pmax(Imp) Short Circuit Current(Isc) Power (W) Open Circuit Voltage(Voc) Power Tolerance(w) Weight 3.80Kg/Pcs Weight 20Kg/Ctn Volume 0.052Cbm/Ctn Tempered Glass 3.2 mm High Permeability Coated SP050M 50W 18.60% 18.24 2.74 21.80 2.97 ±3% Anodized aluminum allow 20GP Container Frame 2690Pcs **Characteristics** Junction Box IP67,0*bypass diode 40HQ Container 6540Pcs Cable age Curve SP050M/32 SP050M/33 Connector Original MC4/Compatible MC4 Mechanical Load Front 5400PA/back 2400PA

STC: 🎇 Light intensity 1000W/m2 🖉 Battery temperature:25°C 🧠 atmosphere quality=12 NOCT: 🌞 Light Intensity 800W/m2 👔 Battery temperature:20°C 🐑 atmosphere quality=15 🌹 wind velocity 1m/s

Final explanation rights reserved





Module Picture

Mechanical Diagrams







Solar Cell(Type/Size)	MONO(182mm)	M
Solar Cells Number	32Pcs(2x16)	Ca
Dimension	570x400x25mm	Nu
Weight	2.80Kg/Pcs	W
Tempered Glass	3.2 mm High Permeability Coated	Vo
Frame	Anodized aluminum alloy	20
Junction Box	IP67、0*bypass diode	40
Cable	//	
Connector	Original MC4/Compatible MC4	
Mechanical Load	Front 5400PA/back 2400PA	
STC: 🎇 Light inter	sity1000W/mz 👔 Battery temperature:251	c

Module Type	9	SP040M-32
Carton Size		600x430x170mm
Number		5Pcs/Ctn
Weight		15Kg/Ctn
Volume		0.044Cbm/Ctn
20GP Conta	iiner	3180Pcs
40HQ Conta	ainer	7730Pcs

NOCT: 🌺 Light intensity 800W/m2 🖉 Battery temperature:20°C 🐑 atmosphere quality=15 🚿 wind velocity fm/s

Final explanation rights res







Wind-Solar Hybrid System

Vertical Energy System Wind Turbine Generator & Solar Panels

Hybrid Off/ON Grid System With Power Storage

DESCRIPTION

Wind Turbine Generator/Outor/Inner rotor Permanent magnet generator Environmentally friendly Wind Turbines & Solar Panels Hybrid Energy System

Wind Generator

*Solar anti-reverse charge, anti-reverse connection protection;

- *Over-speed, over-wind speed, fan over-voltage, fan over-current protection;
- * manual brake, automatic brake protection;
- *Lightning protection, etc.

Inverter

- *Integrated MPPT charge controller.
- *Equalization charging function.
- *Work with battery or without battery.
- *Maximum PV input voltage up to 450VDC.
- *Configurable grid or solar input priority.
- *Optional WIFI/ GPRS remote monitoring
- *5kW,Support parallel operation for capacity expansion up to 30kW.
- *PV and Grid power the load jointly if PV energy unsufficient.
- *Flexibly schedule the Inverter charging and discharging time.







Installation Guide











6



The above information is for reference only, please refer to the manual of installation and use of wind turbines.





SH type wind turbine High efficiency Aluminum alloy with zinc coating 1kw - 60kw power range Color & logo customized One-stop shopping



SX type wind turbine Beautiful design Glass fiber material 1KW - 15KW power range Color & logo customized One-stop shopping



SS Helix wind turbine Beautiful design Glass Fiber material 600W - 2000W power range Color & logo customized One-stop shopping



SL type wind turbines High efficiency Glass fiber material 1kw - 5kw power range Color & logo customized One-stop shopping



SK Type wind turbine High efficiency Glass fiber material 1kw - 30kw power range Color & logo customized One-stop shopping



SD Type wind turbine High efficiency Glass fiber material 30kw - 650kw power range Color & logo customized One-stop shopping





Horizontal Energy System Wind Turbine Generator & Solar Panels

Hybrid Off/ON Grid System With Power Storage

DESCRIPTION

High-quality alloy steel body, using high-quality FRP blades, enhanced anti-corrosion performance, both beautiful and durable

Low start-up wind speed, beautiful appearance and low vibration during operation

High-power tracking intelligent microprocessor control is adopted to effectively adjust the current and voltage

Wind Generator Features:

- 1. Rare earth permanent-magnet generator
- 2. Small vibration and tiny friction, stable rotation in higher speed
- 3. Streamlined wind turbine body and blade outline design
- 4. Blades have 2 kinds, 300w-1kw for high-rigidity FRP materials and blades are dynamic-balanced
- 5. Noise level below 55dB around the wind turbine tower
- 6. State of the art, workmanship and beautiful appearance
- 7. Use magnetic saturation technology, with 20years designed life;
- 8. Select high quality bearing, free to maintenance;
- 9. Anti-twist device, generator can whirl in each direction
- 10. Anti strong wind, the blade protect itself automatically,
- 11. Applications for Household, Farm, Marine, Boat, Street Lights, Home, Opening Plaza lighting etc.
- 11. Supply matched controller/inverter(optional), make solar and wind energy system more stable.
- 12. At night or on rainy day, wind turbine generate wind power. On sunny day, solar panel generate solar power.

On windy and sunny days, both solar and win

Place of Origin:	China	Use:	Home
Solar panel type:	Monocrystalline Silicon	Type of battery:	Lithium Ion
Controller type:	Pwm, Mppt	Installation method:	Roof Mounting, Ground Mounting
Wind turbine type	horizontal	Input voltage	24v
Output voltage	220v	Wind turbine rated power:	2kw

A wind turbine is a device that converts the wind's kinetic energy into electrical energy. Wind was shown to have the "lowest relative greenhouse gas emissions, the least water consumption demands and... the most favourable social impacts" compared to photovoltaic, hydro, geothermal, coal and gas. So the application of wind turbines is more and more widely.

Our 500W Wind Turbine Generator TY-wind turbine is durable, low maintenance and the most powerful wind turbine in our line up of wind turbine having weighing at only 35 lbs. The included Digital MPPT Charge Controller of the 500W wind turbine is specially configured to generate the MAX power output and to





incorporate its safety protocols such as automatic braking and over charging the batteries. Coated with special high weather tolerant protection spray to protect the wind turbine from the elements such as rain. It is a completely self-sustaining stand-alone device that will continuously generates 100% clean GREEN renewable energy, without being present or around it.







Micro Inverter

On-Grid Inverter GTB Se	ries					
(Equipped with mobile phone monitoring, free of MODEM external installation)						
Product	Туре	Parameter				
SMART Micro Inverter GTB-400	GTB-400	DC input: 22-50VDC AC output: 110/230VAC Output power: 400W Size: 20 * 18.5 * 4cm Net weight: 0.9KG Gross weight: 1.45KG Single unit packaging: 24.5 * 20 * 10cm Full box packaging: 51 * 33 * 23cm(14kg) Packaging quantity: 10 units				
Belvector SMART Micro Inverter GTB-600	GTB-600	DC input: 22-50VDC AC output: 110/230VAC Output power: 600W Size: 29 * 20 * 4cm Net weight: 1.7KG Gross weight: 2.3KG Single unit packaging: 34.5 * 24 * 10cm Full box package: 51*38*22.5cm(14KG)				





		Packaging quantity: 5 units
	GTB-800	DC input: 22-50VDC AC output: 110/230VAC Output power: 800W Size: 31 * 20 * 4cm Net weight: 1.8KG Gross weight: 2.5KG Single unit packaging: 34.5 * 24 * 10cm Full box packaging: 51 * 38 * 22.5cm (14KG) Packaging quantity: 5 units
	GTB-1600	DC input: 22-50VDC AC output: 110/230VAC Output power: 1400W Size: 37 * 30 * 4cm Net weight: 2.8KG Gross weight: 3.9KG Single unit packaging: 43 * 37.5 * 11.5cm Full box packaging: 44*40*27cm 15.8KG Packaging quantity: 4 units



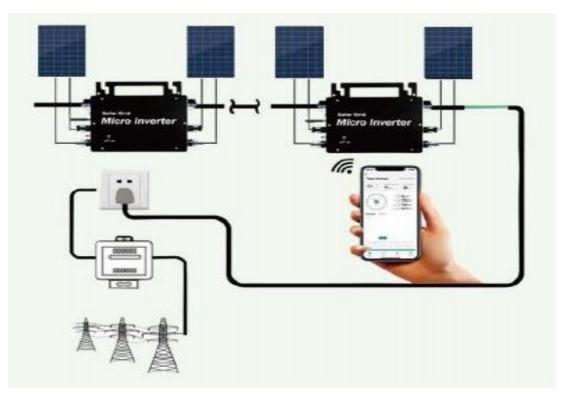


GTB-1200	DC input: 22-50VDC AC output: 110/230VAC Output power: 1200W Size: 37 * 30 * 4cm Net weight: 2.75KG Gross weight: 3.9KG Single unit packaging: 43 * 37.5 * 11.5cm Full box packaging: 44 * 40 * 27cm (15.8KG) Packaging quantity: 4 units
GTB-1400	DC input: 22-50VDC AC output: 110/230VAC Output power: 1400W Size: 37 * 30 * 4cm Net weight: 2.8KG Gross weight: 3.9KG Single unit packaging: 43 * 37.5 * 11.5cm Full box packaging: 44 * 40 * 27cm (15.8KG) Packaging quantity: 4 units

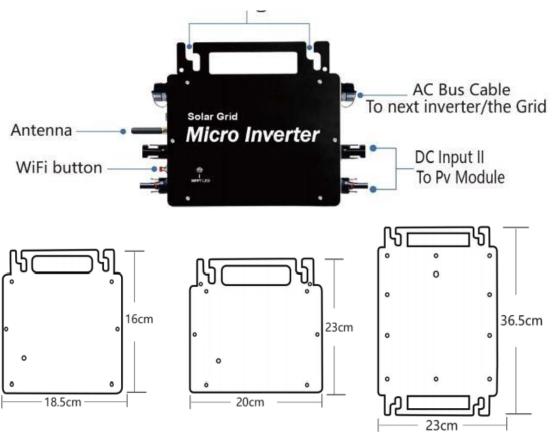




Basic Structure



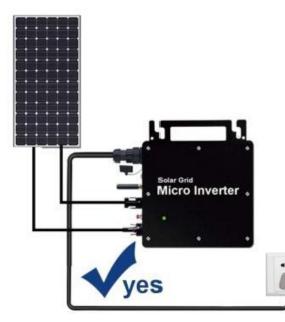
Mounting Holes







Connection Diagram



Normal working conditions of the inverter: the 22-50V DC voltage of the solar panel must be connected, and the AC voltage must be connected at the same time, and the indicator light is green.

Micro Inverter

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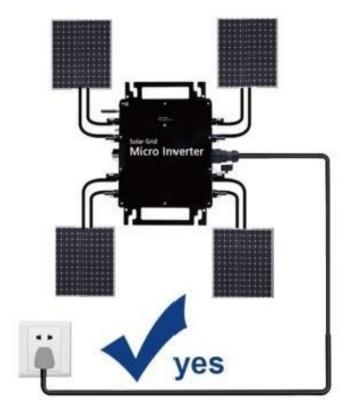
Only the solar panel is connected. When the mains AC is not connected, the red light on the inverter surface is on, and the instrument and machine do not work normally.



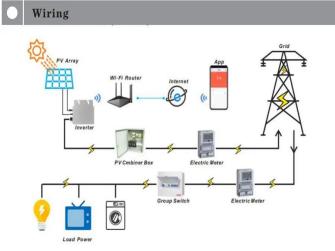


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Micro Inverter



Application Scenario





Wide Usage

It is suitable for various household appliances. It can convert the DC power generated by solar panels into AC power available for household appliances.







Product Catalog

EV Chargers



Q8 - Wallbox-Type1 / Type2 / GB-T



Mode 3: Charging Station with a 5M Type2 cable (4.3 inch)

Model: Q8-AC-02-US(32a phase) Q8-AC-02-UR(32a phase) Q8-AC-02-GB-T(21kw / 11kw / 7kw)



Mode 3: Charging Station with a 5M Type2 cable(LED)

Model: Q8-AC-02-US(32a phase) Q8-AC-02-UR(32a phase) Q8-AC-02-GB-T(21kw / 11kw / 7kw)



LCD Material:PC+ABS LED Light RFID WIFI/4G/LAN Type1 Type2 TypeGB/T

Power rating 7KW(1 Phase) / 11 KW(3 Phase) Charging interface type Typel / Type2 / GB-T Input & Output voltage AC220V±10%(1 Phase) / AC380V±10%(3 Phase) Output current 16A/32A Frequency 45-65HZ Protection ✓ Overvoltage protection ✓ Undervoltage protection ✓ Overvoltage protection ✓ Overtoad protection ✓ Ground protection ✓ Over tomperature protection ✓ Over temperature protection ✓ Over temperature protection ✓ Ulphting protection ✓ Verload protection ✓ Over temperature protection ✓ Lightning protection ✓ Verload protection ✓ Verload protection ✓ Verload protection ✓ Leakage protection ✓ Verload protection ✓ Verload protection ✓ WIF1/4G/OCPP1.6/LAN Optional RCD Type A / type A + 6mA DC 43 inch display Optional	Input & Output	
Input & Output voltage AC220V±10%(1 Phase) / AC380V±10%(3 Phase) Output current 16A/32A Frequency 45-65HZ Protection ✓ Overvoltage protection ✓ Undervoltage protection ✓ Overvolage protection ✓ Short circuit protection ✓ Overtoad protection ✓ Ground protection ✓ Utidescore ✓ Over temperature protection ✓ Lightning protection ✓ Flame retardant protection ✓ Function and Accessory Optional WIFI/4G/OCPP1.6/LAN Optional RFID2 user cards) Optional RCD Type A / type A + 6mA DC 4.3 inch display Optional LED Indicator light ✓ Home load balancing(DLB) Optional Working temperature 40+65°C Working altitude <2000m Working altitude ≥100000H Special protection Wuresistance	Power rating	7KW(1 Phase) / 11 KW(3 Phase)
Output current 16A/32A Frequency 45-65HZ Protection ✓ Overvoltage protection ✓ Undervoltage protection ✓ Overload protection ✓ Short circuit protection ✓ Over temperature protection ✓ Over temperature protection ✓ Lightning protection ✓ Lightning protection ✓ Flame retardant protection ✓ Flame retardant protection ✓ VIFI/4G/OCPP1.6/LAN Optional RFID2 user cards) Optional RCD Type A/ type A+6mA DC 4.3 inch display Optional LED Indicator light ✓ Home load balancing(DLB) Optional Protection ✓ Working temperature 40+65°C Working altitude <2000m Working Mumidity 5%-95% no condensation Cooling mode Natural cooling MTBF ≥100000H Special protection Uversistance	Charging interface type	Typel / Type2 / GB-T
Frequency 45-65HZ Protection ✓ Overolage protection ✓ Undervoltage protection ✓ Overolage protection ✓ Short circuit protection ✓ Ground protection ✓ Over temperature protection ✓ Dight protection ✓ Cover temperature protection ✓ Leakage protection ✓ Flame retardant protection ✓ Flame retardant protection ✓ VIFI/4G/OCPP1.6/LAN Optional RFID(2 user cards) Optional RCD Type A / type A+6mA DC 4.3 inch display Optional LED Indicator light ✓ Home load balancing(DLB) Optional Working temperature 40-+65°C Working temperature 40-+65°C Working temperature 2000m Working Humidity 5%-95% no condensation Cooling mode Natural cooling MTBF ≥100000H Special protection UV resistance	Input & Output voltage	AC220V±10%(1 Phase) / AC380V±10%(3 Phase)
Protection ✓ Overvoltage protection ✓ Undervoltage protection ✓ Short circuit protection ✓ Ground protection ✓ Over temperature protection ✓ Over temperature protection ✓ Lightning protection ✓ Leakage protection ✓ Leakage protection ✓ Flame retardant protection ✓ RCD Type A / type A + 6mA DC 4.3 inch display Optional LED Indicator light ✓ Home load balancing(DLB) Optional Working temperature 40+t65°C Working temperature 40+t65°C Working altitude <2000m Working Humidity 5%-95% no condensa	Output current	16A/32A
Overvoltage protection √ Undervoltage protection √ Overload protection √ Short circuit protection √ Ground protection √ Over temperature protection √ Lightning protection √ Leakage protection √ Leakage protection √ Flame retardant protection √ Flame retardant protection √ Function and Accessory Optional WIFI/4G/OCPP1.6/LAN Optional RCD Type A / type A+6mA DC 4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working environment IP grade ≥IP65 Working temperature -40+-65°C Working altitude <2000m Working Humidity 5%-95% no condensation Cooling mode Natural cooling MTBF ≥100000H Special protection UV resistance	Frequency	45-65HZ
Undervoltage protection √ Overload protection √ Short circuit protection √ Ground protection √ Over temperature protection √ Lightning protection √ Lightning protection √ Leakage protection √ Flame retardant protection √ Function and Accessory √ WIF/G/OCPP1.6/LAN Optional RFID(2 user cards) Optional RCD Type A/ type A+6mA DC 4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working temperature 40+65°C Working altitude <2000m Working timperature 40+65°C Working thumidity 5%-95% no condensation Cooling mode Natural cooling MTBF ≥100000H Special protection UV resistance	Protection	
Overload protection √ Short circuit protection √ Ground protection √ Over temperature protection √ Lightning protection √ Leakage protection √ Leakage protection √ Flame retardant protection √ Function and Accessory √ WIFI/4G/OCPP1.6/LAN Optional RFID2 user cards) Optional RCD Type A/ type A+6mA DC 4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working temperature 40.+65°C Working salitude <2000m	Overvoltage protection	\checkmark
Short circuit protection √ Ground protection √ Over temperature protection √ Lightning protection √ Leakage protection √ Flame retardant protection √ Flame retardant protection √ Function and Accessory ✓ WIFI/4G/OCPP1.6/LAN Optional RFDQ user cards) Optional RCD Type A / type A+6mA DC 4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working temperature 40+465°C Working temperature 40+465°C Working Humidity 5%-95% no condensation Cooling mode Natural cooling MTBF ≥100000H Special protection UV resistance	Undervoltage protection	\checkmark
Ground protection √ Over temperature protection √ Lightning protection √ Leakage protection √ Flame retardant protection √ Function and Accessory √ WIFI/4G/OCPP1.6/LAN Optional RFID(2 user cards) Optional RCD Type A / type A+6mA DC 4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working environment IP grade ≥IP65 Working titude <2000m	Overload protection	\checkmark
Over temperature protection √ Lightning protection √ Leakage protection √ Flame retardant protection √ Function and Accessory √ WIFI/4G/OCPP1.6/LAN Optional RFID(2 user cards) Optional RCD Type A / type A+6mA DC 4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working environment IP grade ≥IP65 Working temperature -40+t-65°C Working Humidity 5%-95% no condensation Cooling mode Natural cooling MTBF ≥100000H Special protection UV resistance	Short circuit protection	\checkmark
Lightning protection √ Leakage protection √ Flame retardant protection √ Function and Accessory	Ground protection	\checkmark
Lightning protection √ Leakage protection √ Flame retardant protection √ Function and Accessory	Over temperature protection	\checkmark
Leakage protection √ Flame retardant protection √ Function and Accessory WIFI/4G/OCPP1.6/LAN Optional RFID(2 user cards) Optional RCD Type A / type A+6mA DC 4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working environment IP grade ≥IP65 Working slitude <2000m	Lightning protection	
Function and Accessory WIF1/4G/OCPP1.6/LAN Optional RFID(2 user cards) Optional RCD Type A / type A + 6mA DC 4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working environment IP65 Working temperature -40+65°C Working alitude <2000m	Leakage protection	1
WIFI/4G/OCPP1.6/LAN Optional RFID(2 user cards) Optional RCD Type A / type A +6mA DC 4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working environment IP grade ≥IP65 Working temperature -40+65°C Working tiltude <2000m	Flame retardant protection	\checkmark
RFID(2 user cards) Optional RCD Type A/type A+6mA DC 4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working environment IP grade ≥IP65 Working temperature -40+-65°C Working littude <2000m	Function and Accessory	
RCD Type A / type A +6mA DC 4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working environment IP grade ≥IP65 Working temperature -40+-65°C Working tumidity 5%-95% no condensation Cooling mode Natural cooling MTBF ≥100000H Special protection UV resistance	WIFI/4G/OCPP1.6/LAN	Optional
4.3 inch display Optional LED Indicator light √ Home load balancing(DLB) Optional Working environment IP grade ≥IP65 Working temperature -40+-65°C Working turidity 5%-95% no condensation Cooling mode Natural cooling MTBF ≥100000H Special protection UV resistance	RFID(2 user cards)	Optional
LED Indicator light √ Home load balancing(DLB) Optional Working environment IP grade ≥IP65 Working temperature -40.+65°C Working altitude <2000m	RCD	Type A / type A+6mA DC
Home load balancing(DLB) Optional Working environment ≥IP65 Working temperature -40+65°C Working altitude <2000m	4.3 inch display	Optional
Working environment IP grade ≥IP65 Working temperature -40++65°C Working altitude <2000m	LED Indicator light	\checkmark
IP grade ≥IP65 Working temperature -40.+65°C Working altitude <2000m	Home load balancing(DLB)	Optional
Working temperature -40.+65°C Working slititude <2000m	Working environment	
Working altitude <2000m	IP grade	≥IP65
Working Humidity 5%-95% no condensation Cooling mode Natural cooling MTBF ≥100000H Special protection UV resistance	Working temperature	-40-+65°C
Cooling mode Natural cooling MTBF ≥100000H Special protection UV resistance	Working altitude	<2000m
MTBF ≥100000H Special protection UV resistance	Working Humidity	5%-95% no condensation
Special protection UV resistance	Cooling mode	Natural cooling
	MTBF	≥100000H
Standby power 3W/5W(With LCD)	Special protection	UV resistance
	Standby power	3W/5W(With LCD)

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Q6 - Wallbox-Type1 / Type2 / GB-T





Mode 3: Charging Station Mode 3: Charging Station with a Mode 3: Charging Station with a 5M Type2 cable(LED) 5M Type2 cable(4.3 inch)

Model:

Q6-AC-03-US(32a phase) Q6-AC-03-UR(32a phase)

Q6-AC-03-GB-T(21kw/11kw/7kw)





Model:



Q6-AC-03-US(32a phase)

Q6-AC-03-UR(32a phase)

Q6-AC-03-GB-T(21kw/11kw/7kw)





Q6-AC-03-US(32a phase)

Q6-AC-03-UR(32a phase)

Q6-AC-03-GB-T(21kw/11kw/7kw)

Model:

with a 5M Type2 cable(7 inch)

Type2 TypeGB/T

Input & Output	
Power rating	7KW(1 Phase) / 11 KW(3 Phase)
Charging interface type	Typel / Type2 / GB-T
Input & Output voltage	AC220V±10%(1 Phase) / AC380V±10%(3 Phase)
Output current	16A/32A
Frequency	45-65HZ
Protection	
Overvoltage protection	\checkmark
Undervoltage protection	\checkmark
Overload protection	\checkmark
Short circuit protection	\checkmark
Ground protection	\checkmark
Over temperature protection	~
Lightning protection	1
Leakage protection	1
Flame retardant protection	\checkmark
Function and Accessory	
Function and Accessory WIFI/4G/OCPP1.6/LAN	Optional
	Optional Optional
WIFI/4G/OCPP1.6/LAN	
WIFI/4G/OCPP1.6/LAN RFID(2 user cards)	Optional
WIFI/4G/OCPP1.6/LAN RFID(2 user cards) RCD	Optional Type A / type A+6mA DC
WIFI/4G/OCPP1.6/LAN RFID(2 user cards) RCD 4.3 inch display	Optional Type A / type A+6mA DC
WIFI/4G/OCPP1.6/LAN RFID(2 user cards) RCD 4.3 inch display LED Indicator light	Optional Type A / type A+6mA DC Optional √
WIFI/4G/OCPP1.6/LAN RFID(2 user cards) RCD 4.3 inch display LED Indicator light Home load balancing(DLB)	Optional Type A / type A+6mA DC Optional √
WIFI/4G/OCPP1.6/LAN RFID(2 user cards) RCD 4.3 inch display LED Indicator light Home load balancing(DLB) Working environment	Optional Type A / type A+6mA DC Optional √ Optional
WIFI/4G/OCPP1.6/LAN RFID(2 user cards) RCD 4.3 inch display LED Indicator light Home load balancing(DLB) Working environment IP grade	Optional Type A / type A+6mA DC Optional √ Optional ≥1P65
WIFI/4G/OCPP1.6/LAN RFID(2 user cards) RCD 4.3 inch display LED Indicator light Home load balancing(DLB) Working environment IP grade Working temperature	Optional Type A / type A+6mA DC Optional √ Optional ≥IP65 -40~+65°C
WIFI/4G/OCPP1.6/LAN RFID(2 user cards) RCD 4.3 inch display LED Indicator light Home load balancing(DLB) Working environment IP grade Working temperature Working altitude	Optional Type A / type A+6mA DC Optional √ Optional ≥IP65 -40~+65°C <2000m
WIFI/4G/OCPP1.6/LAN RFID(2 user cards) RCD 4.3 inch display LED Indicator light Home load balancing(DLB) Working environment IP grade Working temperature Working altitude Working Humidity	Optional Type A / type A+6mA DC Optional √ Optional ≥ IP65 -40~+65°C <2000m 5%-95% no condensation
WIFI/4G/OCPP1.6/LAN RFID(2 user cards) RCD 4.3 inch display LED Indicator light Home load balancing(DLB) Working environment IP grade Working temperature Working altitude Working Humidity Cooling mode	Optional Type A / type A+6mA DC Optional √ Optional ≥IP65 -40~+65°C <2000m 5%-95% no condensation Natural cooling

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Q5 - Wallbox-Type1 / Type2 / GB-T





Mode 3: Charging Station with a 5M Type2 cable(LED)

Model: Q5-AC-01-US(32a phase) Q5-AC-01-UR(32a phase) Q5-AC-01-GB-T(21kw/llkw/7kw)

Mode 3: Charging Station with a 5M Type2 cable(fingerprint)

Model: Q5-AC-01-US(32a phase) Q5-AC-01-UR(32a phase) Q5-AC-01-GB-T(21kw/llkw/7kw)

Input & Output		
Power rating	7KW(1 Phase) / 1 1 KW(3 Phase)	
Charging interface type	Typel / Type2 / GB-T	
Input & Output voltage	AC220V±10%(1 Phase) / AC380V±10%(3 Phase)	
Output current	16A/32A	
Frequency	45-65HZ	
Protection		
Overvoltage protection	\checkmark	
Undervoltage protection	\checkmark	
Overload protection	1	
Short circuit protection	\checkmark	
Ground protection	\checkmark	
Over temperature protection	\checkmark	
Lightning protection	\checkmark	
Leakage protection	\checkmark	
Flame retardant protection	\checkmark	
Function and Accessory		
WIFI/4G/OCPP1.6/LAN	Optional	
RFID(2 user cards)	Optional	
RCD	Type A / type A+6mA DC	
4.3 inch display	Optional	
LED Indicator light	1	
Home load balancing(DLB)	Optional	
Working environment		
IP grade	≥IP65	
Working temperature	-40-+65°C	
Working altitude	<2000m	
Working Humidity	5%-95% no condensation	
Cooling mode	Natural cooling	
MTBF	≥100000H	
Special protection	IIV resistance	
Standby power	3W/5W(With LCD)	

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