Галатек ЕООД
Варна, ул.Зеленика 1-ва, №19
телефони: моб. 089/9925787, офис: 0876/105056

Оферта

за доставка и монтаж

на

Соларна система Трифазна соларна система SOLAX 5 kW с 3 kWh батерия

/Трифазен хибриден инвертор 8kW, Фотоволтаични панели 5kW, Батерия 3 kWh/

№	Наименование	Мярка	Количест	Цена	Сума
1	Соларен инвертор SSOLAX X3-8.0 G4 трифазен	бр.	1	5 792,00 лв.	5 792,00 лв.
2	Фотоволтаични панели 545W JA SOLAR	бр.	9	429,00 лв.	3 861,00 лв.
3	SOLAX ограничител на изходящата енергия монофазен	бр.	1	469,00 лв.	469,00 лв.
4	Алуминиева конструкция за покрив за 9 броя панели	бр.	1	1 269,00 лв.	1 269,00 лв.
5	Соларен кабел, MC4 конектори, табла за защита	бр.	1	2 610,00 лв.	2 610,00 лв.
6	Акумулаторна Батерия Solax Triple Power T-BAT H3.0- 3kW с BMS и монтаж	бр.	1	6 918,00 лв.	6 918,00 лв.
7	Монтаж на конструкция и фотоволтаични панели Окабеляване на фотоволтаичната система Монтаж на Инвертор и табла защита Настройка и пускане в експлоатация	бр.	1	3 870,00 лв.	3 870,00 лв.
				Общо с ДДС:	**24 789,00 лв.**

Изготвил: инж.Антон Душев

Галатек ЕООД
Варна, ул.Зеленика 1-ва, №19
телефони:моб. 089/9925787, офис 0876/105056

Технически характеристики на включените компоненти в офертата сравнени с изисквания на Европейската програма за финансиране на домакинствата за изграждане на фотоволтаични системи 2023г

Фотоволтаични панели			
Показател		**В офертата**	**Изисквания на Програмата**
1	**Ефективност на панела**	**21,10%**	**20%**
2	**Продуктова гаранция**	**12 години**	**12 години**
3	**Деградация първа година**	**до 1%**	**до 2%**
4	**Линейна деградация на еднолицеви модули, на година**	**до 0,5%**	**до 0,6%**
Инвертор Solax			
Показател		**В офертата**	**Изисквания на Програмата**
1	**Ефективност на инвертора** (European weighted efficiency)	**97,70%**	**96%**
2	**Смущения от хармоници THD**	**до 3%**	**до 3%**
3	**Продуктова гаранция**	**10 години**	**10 години**
4	**Наличие на устройство, което ограничава връщане на електроенергия в мрежата съвместно с инвертора или вградена такава финкция на инвертора**	**Solax integrated Smart Meter**	**да**
Системи за съхранение Solax Triple Power			
Показател		**В офертата**	**Изисквания на Програмата**
1	**Работна температура**	**от 0*С до +55*С**	**до +45*С**
2	**Продуктова гаранция**	**10 години**	**5 години**
Конструкция			
Показател		**В офертата**	**Изисквания на Програмата**
1	**Материалите на конструкцията и крепежите са алуминий и неръждаема стомана, които са устойчиви на корозия и не повишават степента на корозия, когато са монтирани заедно в масив или когато са монтирани върху повърхността на основната конструкция**		
2	**Продуктова гаранция**	**10 години**	**10 години**

Higher output power

Lower LCOE

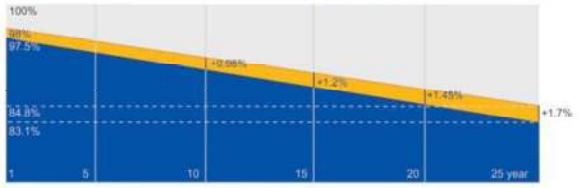
Less shading and lower resistive loss

Better mechanical loading tolerance

Superior Warranty

- 12-year product warranty
- 25-year linear power output warranty

0.55% Annual Degradation Over 25 years



Comprehensive Certificates

- IEC 61215, IEC 61730,UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC TS 62941: 2016 Terrestrial photovoltaic (PV) modules – Guidelines for increased confidence in PV module design qualification and type approval

JA SOLAR

www.jasolar.com

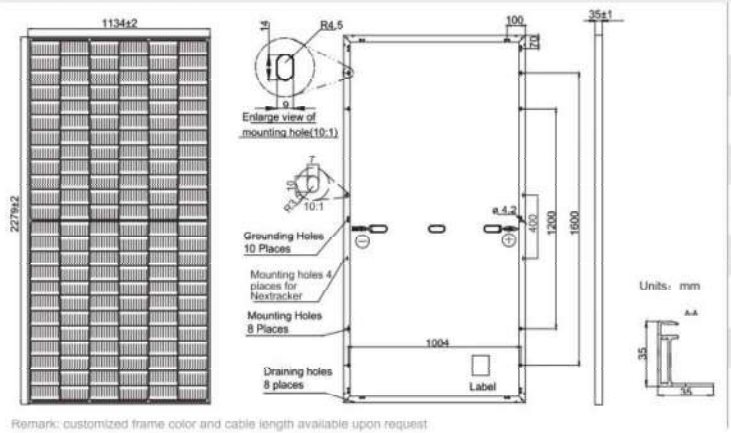
Specifications subject to technical changes and tests.
JA Solar reserves the right of final interpretation.

ФИН КОНСУЛТ ПРИМ ЕООД, Булстат 202252315
тел: 0896 82 50 22, email: pvsolarsnet@gmail.com
гр. Съединение 4190, обл. Пловдив, Индустриална Зона

JA SOLAR

JAM72S30 525-550/MR Series

MECHANICAL DIAGRAMS



Remark: customized frame color and cable length available upon request

SPECIFICATIONS

Cell	Mono
Weight	28.6kg±3%
Dimensions	2279±2mm×1134±2mm×35±1mm
Cable Cross Section Size	4mm² (IEC), 12 AWG(UL)
No. of cells	144(6×24)
Junction Box	IP68, 3 diodes
Connector	QC 4.10(1000V) QC 4.10-35(1500V)
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-); Landscape: 1300mm(+)/1300mm(-)
Packaging Configuration	31pcs/Pallet, 620pcs/40ft Container

ELECTRICAL PARAMETERS AT STC

TYPE	JAM72S30 -525/MR	JAM72S30 -530/MR	JAM72S30 -535/MR	JAM72S30 -540/MR	JAM72S30 -545/MR	JAM72S30 -550/MR
Rated Maximum Power(Pmax) [W]	525	530	535	540	545	550
Open Circuit Voltage(Voc) [V]	49.15	49.30	49.45	49.60	49.75	49.90
Maximum Power Voltage(Vmp) [V]	41.15	41.31	41.47	41.64	41.80	41.96
Short Circuit Current(Isc) [A]	13.65	13.72	13.79	13.86	13.93	14.00
Maximum Power Current(Imp) [A]	12.76	12.83	12.90	12.97	13.04	13.11
Module Efficiency [%]	20.3	20.5	20.7	20.9	21.1	21.3
Power Tolerance	0~+5W					
Temperature Coefficient of Isc(α_Isc)	+0.045%/°C					
Temperature Coefficient of Voc(β_Voc)	-0.275%/°C					
Temperature Coefficient of Pmax(γ_Pmp)	-0.350%/°C					
STC	Irradiance 1000W/m², cell temperature 25°C, AM1.5G					

Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

ELECTRICAL PARAMETERS AT NOCT

TYPE	JAM72S30 -525/MR	JAM72S30 -530/MR	JAM72S30 -535/MR	JAM72S30 -540/MR	JAM72S30 -545/MR	JAM72S30 -550/MR
Rated Max Power(Pmax) [W]	397	401	405	408	412	416
Open Circuit Voltage(Voc) [V]	46.05	46.18	46.31	46.43	46.55	46.68
Max Power Voltage(Vmp) [V]	38.36	38.57	38.78	38.99	39.20	39.43
Short Circuit Current(Isc) [A]	10.97	11.01	11.05	11.09	11.13	11.17
Max Power Current(Imp) [A]	10.35	10.39	10.43	10.47	10.51	10.55
NOCT	Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s, AM1.5G					

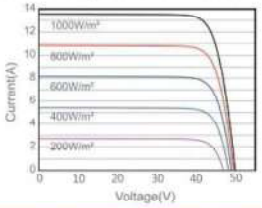
*For NexTracker installations, Maximum Static Load, Front is 2400Pa while Maximum Static Load, Back is 2400Pa.

OPERATING CONDITIONS

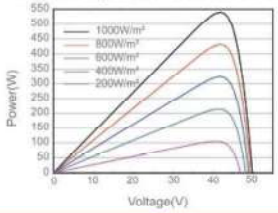
Maximum System Voltage	1000V/1500V DC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse Rating	25A
Maximum Static Load,Front* Maximum Static Load,Back*	5400Pa(112lb/ft²) 2400Pa(50lb/ft²)
NOCT	45±2°C
Safety Class	Class II
Fire Performance	UL Type 1

CHARACTERISTICS

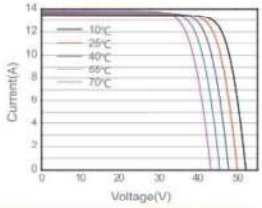
Current-Voltage Curve JAM72S30-540/MR



Power-Voltage Curve JAM72S30-540/MR



Current-Voltage Curve JAM72S30-540/MR



Premium Cells, Premium Modules Version No. : Global_EN_20201207A

ФИН КОНСУЛТ ПРИМ ЕООД, Булстат 202252315
тел: 0896 82 50 22, email: pvsolarsnet@gmail.com
гр. Съединение 4190, обл. Пловдив, Индустриална Зона

X3-Hybrid-D/M

5.0kW/6.0kW/8.0kW
10.0kW/12.0kW/15.0kW

Features

High-efficient
- 150% PV oversized and 110% overload output
- Maximum 150% overload output
- Higher efficiency on charging and discharging, up to 97.5%
- Built-in shadow tracking function

Economic
- Maximum 16A DC input current, support for high power solar panel
- Store the surplus energy from PV to battery
- Low start output voltage makes inverter longer working time
- Less energy loss on battery to inverter

Intelligent
- Switchover time <10ms
- Quick configuration with U-disk
- Lithium-ion battery compatible
- CT compatible, loads respond within 0.3s
- Intelligent loads management(e.g., Heat pump)
- On & Off-grid parallel function, up to 150kW
- 5 work modes, 2 charging periods available
- VPP ready, ancillary service in power market
- Three-phase unbalanced output 50% nominal output power on single phase at most

Safe
- IP65 protection level
- Integrated SPD

info@solaxpower.com
service@solaxpower.com

For More Informations Contact Us

www.solaxpower.com
AU: +61 1300 476529
DE: +49 6142 4091664
Global: +86 571-56260008
UK: +44 2476 586998
NL:+31 (0) 852 737932

ФИН КОНСУЛТ ПРИМ ЕООД, Булстат 202252315
тел: 0896 82 50 22, email: pvsolarsnet@gmail.com
гр. Съединение 4190, обл. Пловдив, Индустриална Зона

X3-HYBRID G4 (THREE PHASE)

	X3-HYBRID-5.0-D X3-HYBRID-5.0-M	X3-HYBRID-6.0-D X3-HYBRID-6.0-M	X3-HYBRID-8.0-D X3-HYBRID-8.0-M	X3-HYBRID-10.0-D X3-HYBRID-10.0-M	X3-HYBRID-12.0-D X3-HYBRID-12.0-M	X3-HYBRID-15.0-D X3-HYBRID-15.0-M
DC INPUT						
Max. PV array input power [Wp]	8000	10000	12000	15000	18000	18000
Max. PV input voltage [V]	1000	1000	1000	1000	1000	1000
Start output voltage [V]	200	200	200	200	200	200
Nominal input voltage [V]	640	640	640	640	640	640
MPP voltage range [V]	180~950	180~950	180~950	180~950	180~950	180~950
No. of MPP trackers/Strings per MPP tracker	2(1/1)	2(1/1)	2(2/1)	2(2/1)	2(2/1)	2(2/1)
Max. input current(input A/input B) [A]	16/16	16/16	26/16	26/16	26/16	26/16
Max. short circuit current(input A/input B) [A]	20/20	20/20	30/20	30/20	30/20	30/20
AC INPUT & OUTPUT						
Nominal AC output power [W]	5000	6000	8000	10000	12000	15000
Max. AC output apparent power [VA]	5500	6600	8800	11000	13200	15000
Max. AC output current [A]	8.1	9.7	12.9	16.1	19.3	24.1
Max. AC input apparent power [VA]	10000	12000	16000	20000	20000	20000
Max. AC input current [A]	16.1	19.3	25.8	32.0	32.0	32.0
Nominal AC voltage [V]	415/240, 400/230, 380/220					
Nominal grid frequency [Hz]	50/60					
Displacement power factor	0.8 leading~0.8 lagging					
THDi (rated power) [%]	<3					
BATTERY DATA						
Battery type	Li-ion battery					
Battery voltage range [V]	180~650					
Max. continuous charge/discharge current [A]	30					
EPS(OFF-GRID OR BACK-UP) OUTPUT (WITH BATTERY)						
Nominal output power [W]	5000	6000	8000	10000	12000	15000
Peak apparent power [VA]	7500,60s	9000, 60s	12000,60s	15000, 60s	15000, 60s	16500, 60s
Max.continous current [A]	7.2	8.7	11.6	14.5	17.5	21.8
Nominal voltage[V]; Frequency [Hz]	400/230; 50/60					
Switch time [ms]	<10					
Parallel operation	YES					
SYSTEM DATA						
Max. efficiency [%]	98.0					
Euro. efficiency [%]	97.7					
Battery charge/discharge effciency [%]*1	98.5/97.5					
Standby consumption [W] @Night	<5					
Degree of protection	IP65					
Operating temperature range [°C]	-35~60 (Derating above +45°C)					
Max. operation altitude [m]	<3000					
Relative humidity [%]	0~100					
Typical noise emission [dB]	<35	<35	<35	<35	<45	<45
Storage temperature [°C]	-40~+70					
Dimensions(WxHxD) [mm]	503x503x199					
Net weight [kg]	30					
Cooling concept	Nature cooling	Nature cooling	Nature cooling	Nature cooling	Smart cooling	Smart cooling
Communication interfaces	CT/ Meter(optional)/ External control RS485/ Pocket WiFi(Optional: Pocket Lan/4G)/ DRM/ USB Upgrade/NTC(optional)					
STANDARD						
Safety	EN/IEC62109-1/-2					
EMC	EN61000-6-1/2/3/4;EN61000-3-2/3/11/12					
Certification	VDE4105 /G99 /G98 / AS4777 / EN50549/ CEI 0-21 /IEC61727/PEA/MEA/NRS-097-2-1/RD1699/TOR					

*1: PV to BAT Max. efficiency 98.5%, BAT to AC Max. efficiency 97.5%.

V2.1. Information may be subject to modify without notice. 650.0001.00.0

Country of Origin: PR China

Manufacturer:Solax Power Network Technology (zhejiang) Co., Ltd.

ФИН КОНСУЛТ ПРИМ ЕООД, Булстат 202252315
тел: 0896 82 50 22, email: pvsolarsnet@gmail.com
гр. Съединение 4190, обл. Пловдив, Индустриална Зона

Triple Power 3.0 Battery

- Safest $LiFePO_4$ battery (30 Ah)
- Working temperature range:-30~50°C
- Smart temperature balancing
- Cycle life>6000 times
- IP67 protection level
- Less self consumption
- Quick installation
- No toxic heavy metals or caustic materials

	T-BAT H 3.0	T-BAT H 6.0*	T-BAT H 9.0*	T-BAT H 12.0*
Nominal Voltage [V]	102.4	204.8	307.2	409.6
Operating voltage range [V]	90-116	180-232	270-348	360-464
Total energy [kWh]	3.1	6.1	9.2	12.3
Usable energy [kwh]	3.1	6.1	9.2	12.3
Rated Capacity [Ah]	30			
Standard power [kW]	2.55	5.1	7.65	10.2
Max power [kW]	3.1	6.1	10.2	12.3
Recommend charge/discharge current [A]	25			
Maxcharge/discharge current [A]	30			
Faradic charge efficiency	99%			
Battery roundtrip efficiency	95%			
Cycel life [90% DOD]	6000 Cycles			
Expected life time / Warranty [year]	10			
Available charge/discharge temperature range [°C]	-30 to 50			
Storage temperature [°C]	-20 to 55 (3 months) 0 to 40 (1 year)			
Humidity [%]	0~100			
Altitude [m]	Below 4000			
Protection	IP67			
System to Inverter	RS485/CAN2.0			
Battery to battery/BMS	CAN2.0			
Master LED indicator	4LED (25%, 50%, 75%, 100%), 1LED (working mode)			
System Switch (on/off)	Button*1+Breaker*1			
Safety Certificate	CE/TUV Mark/IEC62619/IEC62040/IEC60529			
EMC	61000-6-1/2/3, 61000-3-2/3			
UN number	UN3840			
Hazardous materials classifcation	Class 9			
Transport testing requirement	UN38.3			
Dimensions(LxWxH) [mm]	MC0600: 482*174*148 HV10230: 482*472*148	MC0600: 482*174*148 HV10230: 482*472*148	MC0600: 482*174*148 HV10230: 482*472*148	MC0600: 482*174*148 HV10230: 482*472*148
Weight [kg]	MC0600: 7.5kg +HV10230: 33kg	MC0600: 7.5kg +2*HV10230: 66kg	MC0600: 7.5kg +3*HV10230: 99kg	MC0600: 7.5kg +4*HV10230: 132kg

* MC0600:Battery BMS (one MC0600 can be connected 1~4 HV10230)
* HV10230:Battery Pack

ФИН КОНСУЛТ ПРИМ ЕООД, Булстат 202252315
тел: 0896 82 50 22, email: pvsolarsnet@gmail.com
гр. Съединение 4190, обл. Пловдив, Индустриална Зона