Residential PV System Solutions

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Module

•450W~600W
•Customization

Hybrid Inverter

•3.6KW~15KW
• 230V/400V

Battery

•5KWH/10KWH/15KWH/
•20KWH
•2KWH/4KWH

Bracket

•Hook-type
•Balcony-type
•Counterweight-type



Which one suit for you?
Pick one please!!!

PV System Solution	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
Product Model	3.6K/5KWH	5K/5KWH	8K/10KWH	10K/10KWH	10K/10KWH	10K/15KWH	12K/15KWH	15K/20KWH	800/2KWH	1200/2KWH
Required Roof Area(m^2)	18	27	45	54	54	54	60	75	5 **(Balcony Area)**	8 **(Balcony Area)**
Load Power (off-grid operation)	3.6KVA	5KVA	8KVA	10KVA	10KVA	10KVA	12KVA	15KVA	0.8KVA	1.2KVA
Voltage	230V	230V	230V	230V	230V/400V	230V/400V	230V/400V	230V/400V	230V	230V
Battery Capacity	5KWH	5KWH	10KWH	10KWH	10KWH	15KWH	15KWH	20KWH	2KWH	2KWH

Residential PV System Products--Single phase

S1: 3.6K/5KWH

3.6KW/5KWH Residential PV System				
Components	**Specification**	**Qty**	**Unit**	**Remark**
Module	600W	6	pcs	G/B
Hybrid inverter	3.6KVA–230V	1	pcs	Single–phase
Battery	5.12kwh/51.2V	1	set	Wall–mounted
Bracket	40*40	20	M	Including pressure blocks,hooks,etc.
DC cable	PV 1–4mm^2	50	m	Module–Inverter
	MC4	2	set	/

S2: 5K/5KWH

5KW/5KWH Residential PV System				
Components	**Specification**	**Qty**	**Unit**	**Remark**
Module	600W	9	pcs	G/B
Hybrid inverter	5KVA–230V	1	pcs	Single–phase
Battery	5.12kwh/51.2V	1	set	Wall–mounted
Bracket	40*40	30	M	Including pressure blocks,hooks,etc.
DC cable	PV 1–4mm^2	50	m	Module–Inverter
	MC4	2	set	/

Residential PV System Products--Single phase

S3: 8K/10KWH

8KW/10KWH Residential PV System				
Components	**Specification**	**Qty**	**Unit**	**Remark**
Module	600W	14	pcs	G/B
Hybrid inverter	8KVA–230V	1	pcs	Single–phase
Battery	10.24kwh/51.2V	1	set	Wall–mounted
Bracket	40*40	45	M	Including pressure blocks,hooks,etc.
DC cable	PV 1–4mm^2	80	m	Module–Inverter
	MC4	4	set	/

S4: 10K/10KWH

10KW/10KWH Residential PV System				
Components	**Specification**	**Qty**	**Unit**	**Remark**
Module	600W	18	pcs	G/B
Hybrid inverter	10KVA–230V	1	pcs	Single–phase
Battery	10.24kwh/51.2V	1	set	Vertical installation
Bracket	40*40	60	M	Including pressure blocks,hooks,etc.
DC cable	PV 1–4mm2	100	m	Module–Inverter
	MC4	4	set	/

Residential PV System Products--Three phase

S5: 10K/10KWH

10KW/10KWH Residential PV System				
Components	**Specification**	**Qty**	**Unit**	**Remark**
Module	600W	18	pcs	G/B
Hybrid inverter	10KVA–230V/400V	1	pcs	Three–phase
Battery	10.24kwh/204.8V	1	set	Vertical installation
Bracket	40*40	60	M	Including pressure blocks,hooks,etc.
DC cable	PV 1–4mm^2	100	m	Module–Inverter
	MC4	4	set	/

S6: 10K/15KWH

10KW/15KWH Residential PV System				
Components	**Specification**	**Qty**	**Unit**	**Remark**
Module	600W	18	pcs	G/B
Hybrid inverter	10KVA–230V/400V	1	pcs	Three–phase
Battery	15.36kwh/307.2V	1	set	Vertical installation
Bracket	40*40	60	M	Including pressure blocks,hooks,etc.
DC cable	PV 1–4mm^2	100	m	Module–Inverter
	MC4	4	set	/

Residential PV System Products--Three phase

S7: 12K/15KWH

12KW/15KWH Residential PV System				
Components	**Specification**	**Qty**	**Unit**	**Remark**
Module	600W	20	pcs	G/B
Hybrid inverter	12KVA–230V/400V	1	pcs	Three–phase
Battery	15.36kwh/307.2V	1	set	Vertical installation
Bracket	40*40	70	M	Including pressure blocks,hooks,etc.
DC cable	PV 1–4mm^2	100	m	Module–Inverter
	MC4	6	set	/

S8: 15K/20KWH

15KW/20KWH Residential PV System				
Components	**Specification**	**Qty**	**Unit**	**Remark**
Module	600W	25	pcs	G/B
Hybrid inverter	15KVA–230V/400V	1	pcs	Three–phase
Battery	10.24kwh/204.8V	2	set	Vertical installation
Bracket	40*40	80	M	Including pressure blocks,hooks,etc.
DC cable	PV 1–4mm^2	150	m	Module–Inverter
	MC4	6	set	/

Residential PV System Products--Sigle phase

S9: 800/2KWH

800W/2KWH Balcony Solar System				
Components	**Specification**	**Qty**	**Unit**	**Remark**
Module	410W	2	pcs	Size: 1722*1134*30mm
Hybrid inverter	800V/230V	1	pcs	EVT800
Battery	2000Wh	1	set	ES200
Bracket	Adjustable	2	set	Including installation accessories
DC cable	PV 1–4mm^2	20	m	Module–Microinverter
	MC4	2	set	/

S10: 1200/2KWH

1200W/2KWH Balcony Solar System				
Components	**Specification**	**Qty**	**Unit**	**Remark**
Module	410W	3	pcs	Size: 1722*1134*30mm
Hybrid inverter	800V/230V	2	pcs	EVT800
Battery	2000Wh	1	set	ES200
Bracket	Adjustable	3	set	Including installation accessories
DC cable	PV 1–4mm2	30	m	Module–Microinverter
	MC4	3	set	/

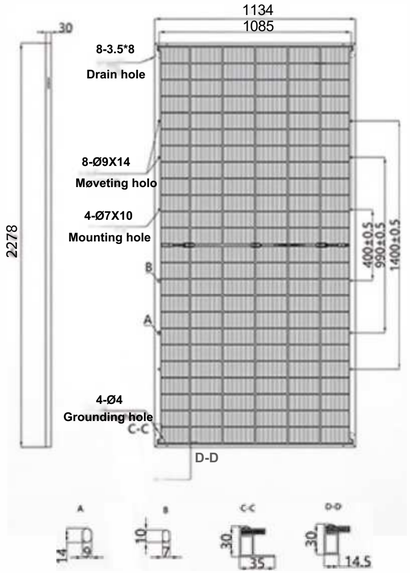
Module

N-TOPCon-585-605W

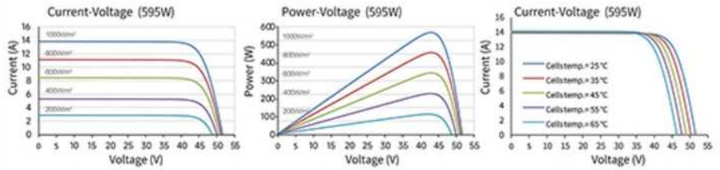
Mechanical parameters

Outer dimensions (L x W x H)	2278 x 1134 x 30 mm
Cell	N type mono–crystalline
Number of cells	144 (6*24)
Frame Type	Aluminum,silver/black anodized
Glass thickness	2.0+2.0 mm
Cable length (including connector)	Portrait:(+)300 mm,(–)300 mm; Customized length
Cable cross–sectional area (IEC)	4 mm²/ 12 AWG
①Maximum test mechanical load	5400Pa (front) /2400Pa(rear)
Connector type (IEC)	QC Solar:QC4.10–cds Sunter:PV–ZH202B XTong:PV–XT101.1,PV–XT101.2 Stäubli:PV–KST4–EVO2/xy_UR,PV–KBT4–EVO2/xy_UR or PV–KST4–EVO2A/xy,PV–KBT4–EVO2A/xy
Module weight	32.1 kg
Packaging unit	36 pcs / box (Subject to sales contract)
Weight of packing unit	1215 kg / box
Modules per 40' HQ container	720 pcs

①Please refer to the installation manual or contact us to confirm.
The maximum test mechanical load =1.5× maximum design mechanical load.



Performance curve



Temperature coefficient

- 0.29% /°C
Temperature coefficient
(Pmpp)

+0.043%/°C
Temperature coefficient
(Isc)

- 0.24% /°C
Temperature coefficient
(Voc)

42 ± 2 °C
Nominal module operating temperature
(NMOT)

Electrical performance parameters

*STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

Rated output (Pmpp/Wp)	585	590	595	600	605
Rated voltage (Vmpp/V)	42.76	42.88	43.0	43.13	43.25
Rated current (Impp/A)	13.68	13.76	13.84	13.91	13.99
Open circuit voltage (Voc/V)	52.05	51.45	51.60	51.75	51.9
Short–circuit current (Isc/A)	14.07	14.5	14.60	14.69	14.79
Module efficiency	22.6%	22.8%	23%	23.2%	23.4%
Power sorting tolerance			0~+5W		

Hybrid Inverter



Specifications	3.6KTL2	5KTL2	8KTL2	10KTL2	10KTL3	12KTL3
DC Input						
Maximum input power	5.4KW	7.5KW	12.8KW	16KW	16KW	19.2KW
Maximum input voltage	600V	600V	600V	600V	1100V	1100V
Starting voltage	100V	100V	100V	100V	160V	160V
Rated voltage	360V	360V	360V	360V	600V	600V
MPPT voltage range	100V–550V	100V–550V	100V–550V	100V–550V	150V–1000V	150V–1000V
MPPT quantity	2	2	2	2	2	2
Number of series strings that each MPPT group can connect to	1/1	1/1	2/1	2/1	1/1	1/1
Maximum input current of each MPPT group	16A	16A	32A/20A	32A/20A	20A	20A
Maximum input current	24A	24A	40A/25A	40A/25A	40A	40A
AC Output						
Rated output power	3.68KWA	5KWA	8KWA	10KWA	10KWA	12KWA
Maximum output power	3.68KVA	5.5KVA	8.8KVA	11KVA	11KVA	13.2KVA
Maximum output current	16A	22.7A	40A	50A	14.5A	17.4A
Rated voltage	230V				230V/400V	
Rated frequency	50Hz/60Hz				50Hz/60Hz	
Total harmonic distortion of current (@ rated power)	<3%				<2%	
Power factor	0.8 leading by one step – 0.8 lagging by one step					

Hybrid Inverter



Specifications	3.6KTL2	5KTL2	8KTL2	10KTL2	10KTL3	12KTL3
Off-grid output						
Maximum output power	3.68KWA	5KWA	8KWA	10KWA	10KWA	12KWA
Maximum output current	3.68KVA	5.5KVA	8.8KVA	11KVA	11KVA	13.2KVA
Peak output power,time	16A	22.7A	40A	50A	14.5A	17.4A
Rated output voltage, frequency	230V,50Hz				230V/400V,50Hz	
THDv(@ rated power)	<3%					
Switching time	<10ms					
Battery parameters						
Battery type	Lithium batteries,lead–acid batteries					
Battery voltage range	40V–60V				160V–800V	
Maximum charge–discharge current	100A	100A	190A	210A	50A	
Communication mode	CAN				CAN/RS485	
Protect						

Including DC switch、DC reverse connection protection、Island protection、I-V curve scanning、Overcurrent/overvoltage protection、Output short circuit、Current leakage detection、Insulation resistance detection、Ground fault detection、Soft-start protection for battery、Surge protection(Level Two)、AFCI protection(Optional equipment)

Hybrid Inverter



Specifications	3.6KTL2	5KTL2	8KTL2	10KTL2	10KTL3	12KTL3
Display and Communication						
Display	LCD					
Communication	RS485/CAN/WIFI/4G/LAN/Bluetooth					
The standards for satisfaction						
Grid connection standards	IEC 61727、IEC 62116、IEC 60068、IEC 61683、VDE–AR–N 4105、EN 50549、AS/NZS 4777、CEI–21 VDE 0126–1–1/A1、VFR 2014、UTE C15–712–1、NRS 097–2–1、MEA/PEA、C10/11、G98/G99					
Conventional parameters						
Dimensions (width * height * depth)	490*395*200mm		440*530*250mm		534*440*250mm	
Weight	20kg		20kg		30kg	
Environmental temperature range	−30℃ ~ +60℃		−30℃ ~ +60℃		−30℃ ~ +60℃	
Cooling method	Natural cooling		Natural air cooling		Natural cooling	
Protection level	IP66		IP66		IP66	
Maximum working altitude	4000m		4000m		4000m	
Noise	≤25dB		≤25dB		≤35dB	
Relative humidity	0–100%		0–100%		0–100%	
Standby power loss	<10W		<10W		<10W	
Topology	High–frequency isolation (for battery)				No isolation transformer	

Energy storage battery

Specifications	BM–L–5KWH	BM–L–10KWH	BM–H–10KWH	BM–H–15KWH
Technical parameters				
Nominal energy	5.12kwh	10.24kwh	10.24kwh	15.36kwh
Nominal capacity	100AH	200AH	100AH	100AH
Cell type	LFP	LFP	LFP	LFP
Discharge depth	80%	80%	90%	90%
Nominal voltage	51.2V	51.2V	204.8V	307.2V
Battery voltage range	43.2V–56.16V	43.2V–56.16V	172.8V–224.6V	259.2V–336.96V
Rated charge–discharge current	50A	100A	50A	50A
Maximum charging current	100A	100A	50A	50A



- Support multiple communication protocols
- LED lights display equipment parameters in real time
- Intelligent battery management system
- Long cycle life
- Modular structure, easy to install
- Outstanding safety performance

Energy storage battery



Specifications	BM–L–5KWH	BM–L–10KWH	BM–H–10KWH	BM–H–15KWH
Standard parameters				
Dimensions of battery cabinet (L*K*H)	520*470*142mm	640*890*200mm	600*980*210mm	600*1300*210mm
Weight of battery cabinet	47.2kg	119kg	129kg	182kg
Protection level	IP65	IP65	IP65	IP65
Installation method	Wall–mounted / Floor–standing	Stackable installation		
Charging temperature range	0°C ~ 55°C			
Discharging temperature range	–20°C ~ 60°C			
Communication mode	CAN,RS485			
Display	LED			
Relative humidity	5%–95%			
Maximum altitude	<2000m			
Number of cycles	6000次@80%DOD,25°C，0.5C			
Meet the standard				
Certification	CB,EMC,UN38.3,MSDS			

Bracket

A.Roof-type brackets











B.Balcony brackets



C.Flat foof-Ballasted Solutions



Contact US

WhatsApp: +86 18112319127

Email: info@valinenergy.com

www.valinenergy.com