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# Deye

*Clean Power For You*

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Note: The technical data above mentioned may be updated or revised due to product development. The data in this brochure is subject to change without notice. The latest datasheet and catalogue can be acquired via [market@deye.com.cn](mailto:market@deye.com.cn)

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# Single Phase String Inverter

## SUN- 3.6 / 5 K-G



2 MPPT trackers, Max. efficiency up to 97.5%



Wide output voltage range



Zero export application, VSG application



Anti-PID function (Optional)



String intelligent monitoring (optional)



80 Low start-up voltage of 80V



Model	SUN-3.6K-G	SUN-5K-G
<b>Input Side</b>		
Max. DC Input Power (kW)	4.7	6.5
Max. DC Input Voltage (V)	550	
Start-up DC Input Voltage (V)	80	
MPPT Operating Range (V)	70~550	
Max. DC Input Current (A)	13+13	
Number of MPPT / Strings per MPPT	2 / 1	
<b>Output Side</b>		
Rated Output Power (kW)	3.6	5
Max. Active Power (kW)	4	5.5
Rated AC Grid Voltage (V)	220 / 230 (Optional)	
AC Grid Voltage Range (V)	180Vac~300 Vac (this may vary with grid standards)	
Rated Grid Frequency (Hz)	50 / 60 (Optional)	
Operating Phase	Single phase	
Rated AC Grid Output Current (A)	15.7	21.7
Max. AC Output Current (A)	17.4	23.9
Output Power Factor	0.8 leading to 0.8 lagging	
Grid Current THD	<3%	
DC Injection Current (mA)	<0.5%	
Grid Frequency Range	47~52 or 57~62 (Optional)	
<b>Efficiency</b>		
Max. Efficiency	97.3%	97.5%
Euro Efficiency	97.1%	97.3%
MPPT Efficiency	>99%	
<b>Protection</b>		
DC Reverse-Polarity Protection	Yes	
AC Short Circuit Protection	Yes	
AC Output Overcurrent Protection	Yes	
Output Overvoltage Protection	Yes	
Insulation Resistance Protection	Yes	
Ground Fault Monitoring	Yes	
Anti-islanding Protection	Yes	
Temperature Protection	Yes	
Integrated DC Switch	Yes	
Remote software upload	Yes	
Remote change of operating parameters	Yes	
Surge protection	DC Type II / AC Type II	
<b>General Data</b>		
Size (mm)	330Wx310Hx172D	
Weight (kg)	11	
Topology	Transformerless	
Internal Consumption	<1W (Night)	
Running Temperature	-25~65°C	
Ingress Protection	IP65	
Noise Emission (Typical)	<25 dB	
Cooling Concept	Natural cooling	
Max. Operating Altitude Without Derating	2000m	
Designed Lifetime	>20 years	
Grid Connection Standard	EN50549-1, IEC61727, IEC62116, IEC60068, IEC61683, VDE 0126-1-1, ABNT NBR 16149, ABNT NBR 16150, RD1699, UNE 206006 IN, UNE 206007-1 IN, UNE 217001 IN	
Operating Surroundings Humidity	0-100%	
Safety EMC / Standard	IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12	
<b>Features</b>		
DC Connection	MC-4 mateable	
AC Connection	IP65 rated plug	
Display	LCD1602	
Interface	RS485/RS232/Wifi/LAN	

# Single Phase String Inverter

## SUN- 8 K-G



2 MPP trackers, Max. efficiency up to 97.7%



Wide output voltage range



Zero export application, VSG application



Anti-PID function (Optional)



String intelligent monitoring (optional)

Model	SUN-8K-G
<b>Input Side</b>	
Max. DC Input Power (kW)	10.4
Max. DC Input Voltage (V)	550
Start-up DC Input Voltage (V)	120
MPPT Operating Range (V)	70~550
Max. DC Input Current (A)	13+26
Number of MPPT / Strings per MPPT	2 / 1+2
<b>Output Side</b>	
Rated Output Power (kW)	8
Max. Active Power (kW)	8.8
Rated AC Grid Voltage (V)	220 / 230 (Optional)
AC Grid Voltage Range (V)	180Vac~300 Vac (this may vary with grid standards)
Rated Grid Frequency (Hz)	50 / 60 (Optional)
Operating Phase	Single phase
Rated AC Grid Output Current (A)	34.8
Max. AC Output Current (A)	38.3
Output Power Factor	0.8 leading to 0.8 lagging
Grid Current THD	<3%
DC Injection Current (mA)	<0.5%
Grid Frequency Range	47~52 or 57~62 (Optional)
<b>Efficiency</b>	
Max. Efficiency	97.7%
Euro Efficiency	97.5%
MPPT Efficiency	>99%
<b>Protection</b>	
DC Reverse-Polarity Protection	Yes
AC Short Circuit Protection	Yes
AC Output Overcurrent Protection	Yes
Output Overvoltage Protection	Yes
Insulation Resistance Protection	Yes
Ground Fault Monitoring	Yes
Anti-islanding Protection	Yes
Temperature Protection	Yes
Integrated DC Switch	Yes
Remote software upload	Yes
Remote change of operating parameters	Yes
Surge protection	DC Type II / AC Type II
<b>General Data</b>	
Size (mm)	330Wx310Hx198.5D
Weight (kg)	11
Topology	Transformerless
Internal Consumption	<1W (Night)
Running Temperature	-25~65°C
Ingress Protection	IP65
Noise Emission (Typical)	<25 dB
Cooling Concept	Natural cooling
Max. Operating Altitude Without Derating	2000m
Designed Lifetime	>20 years
Grid Connection Standard	ABNT NBR 16149, ABNT NBR 16150, ABNT NBR IEC 62116, RD1699, UNE 206006 IN, UNE 206007-1 IN, UNE 217001 IN
Operating Surroundings Humidity	0-100%
Safety EMC / Standard	IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12
<b>Features</b>	
DC Connection	MC-4 mateable
AC Connection	IP65 rated plug
Display	LCD1602
Interface	RS485/RS232/Wifi/LAN



# Three Phase String Inverter

SUN- 12 K-G03



2 MPPT trackers, Max. efficiency up to 98.5%



Wide output voltage range



Zero export application, VSG application



Anti-PID function (Optional)



String intelligent monitoring (optional)

Model	SUN-12K-G03
<b>Input Side</b>	
Max. DC Input Power (kW)	15.6
Max. DC Input Voltage (V)	1000
Start-up DC Input Voltage (V)	250
MPPT Operating Range (V)	200~850
Max. DC Input Current (A)	11+22
Number of MPPT / Strings per MPPT	2 / 1+2
<b>Output Side</b>	
Rated Output Power (kW)	12
Max. Active Power (kW)	13.2
Rated AC Grid Voltage (V)	220 / 380, 230 / 400
AC Grid Voltage Range (V)	277Vac~460Vac (this may vary with grid standards)
Rated Grid Frequency (Hz)	50 / 60 (Optional)
Operating Phase	Three phase
Rated AC Grid Output Current (A)	17.4
Max. AC Output Current (A)	19.1
Output Power Factor	0.8 leading to 0.8 lagging
Grid Current THD	<3%
DC Injection Current (mA)	<0.5%
Grid Frequency Range	47~52 or 57~62 (Optional)
<b>Efficiency</b>	
Max. Efficiency	98.5%
Euro Efficiency	97.5%
MPPT Efficiency	>99%
<b>Protection</b>	
DC Reverse-Polarity Protection	Yes
AC Short Circuit Protection	Yes
AC Output Overcurrent Protection	Yes
Output Overvoltage Protection	Yes
Insulation Resistance Protection	Yes
Ground Fault Monitoring	Yes
Anti-islanding Protection	Yes
Temperature Protection	Yes
Integrated DC Switch	Yes
Remote software upload	Yes
Remote change of operating parameters	Yes
Surge protection	DC Type II / AC Type II
<b>General Data</b>	
Size (mm)	330Wx430Hx193.5D
Weight (kg)	17
Topology	Transformerless
Internal Consumption	<1W (Night)
Running Temperature	-25~65°C
Ingress Protection	IP65
Noise Emission (Typical)	<45 dB
Cooling Concept	Smart cooling
Max. Operating Altitude Without Derating	2000m
Designed Lifetime	>20 years
Grid Connection Standard	EN50549-1, IEC61727, IEC62116, IEC60068, IEC61683, VDE 0126-1-1, RD1699, UNE 206006 IN, UNE 206007-1 IN, UNE 217001 IN
Operating Surroundings Humidity	0-100%
Safety EMC / Standard	IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12
<b>Features</b>	
DC Connection	MC-4 mateable
AC Connection	IP65 rated plug
Display	LCD1602
Interface	RS485/RS232/Wifi/LAN



# 6KW HYBRID INVERTER



## High-yield

- Real time precise MPPT algorithm for max power generation
- Wide input voltage operation range
- Independent dual MPPT tracking, flexible solar roof system design

## Reliable and Safe

- High efficiency low energy loss, Low maintenance
- High frequency isolation between battery & PV/grid
- Advanced battery management technology to protect the battery life.

## Easier Operation

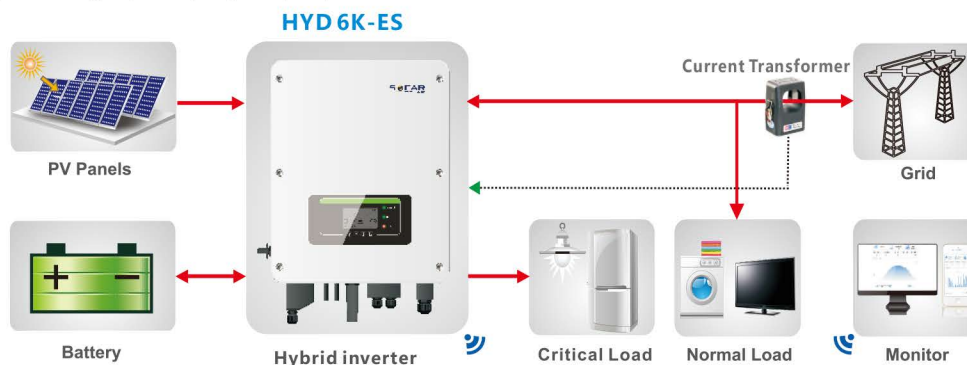
- Free site selection due to IP65
- 4" LCD clear, easy-to-read display
- Easy monitoring on phone (APP) & PC (web)

## Multiple working modes

- PV & storage all in one, increases self consumption to 80%+, decreases reliance on the electrical grid, decreases the electricity bill.
- Stand alone mode (like UPS) available, ensures safe operation of critical loads
- Multiple operation modes selection: auto mode, time-of-use mode, timing mode, passive mode etc.

## Intelligent grid management

- Reactive power capability
- Limits AC output when grid frequency is too high or to low
- Limits AC output when grid voltage is too high
- Built in zero export function (optional)



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# HYBRID INVERTER



HYD 6000-ES

## Datasheet

## HYD 6000-ES

### Battery Parameters

Battery Type	Lithium-ion,Lead-acid
Nominal battery Voltage	48V
Battery voltage range	42-58V
Battery Capacity	50-2000AH
Maximum Charging /Discharging Power	3000W
Maximum Charging Current	60A (programmable)
Maximum Discharging Current	60A (programmable)
Charging curve(Lithium-ion)	BMS
Charging curve(Lead-acid)	3-stage adaptive with maintenance
Depth of discharge	Lithium-ion:0-90% DOD adjustable Lead-acid:0-50% DOD adjustable

### Input DC(PV side)

Recommended Max. PV input power	6600W
Max DC power for single MPPT	3500W(300V-520V)
The max DC input voltage	600V
Start-up DC voltage	120V
Nominal DC Voltage	360V
MPPT operating voltage range	90-580V
Full load DC voltage range	300V-520V
MPPT number	2
The max DC input current	12A/12A
The max DC input short current	15A/15A

### Output AC(Grid side)

Rated Power	6000W
Max. Output Power	6000VA
Nominal Grid Voltage	L/N/PE,220,230,240
Operation phase	Single(L-N-PE)
Max. Input/Output current	27.3A
AC voltage Range	180V~276V(According to local standard)
Grid Frequency range	44-55Hz/54-66Hz(According to local standard)
THD	< 3%
Power factor	1 default ( +/-0.8 adjustable)

### Output AC(Emergency Power Supply)

EPS rated power	3000VA
Operation phase	Single(L-N-PE)
EPS rated voltage, Frequency	230V,50/60Hz
EPS rated current	13A
Peak Output Apparent Power	4000VA , 10s
THD	< 3%
Switch time	10ms default

### Efficiency

MPPT efficiency	99.9%
Max efficiency of solar Inverter	98.0%
European efficiency of solar Inverter	97.5%
Max. Charging efficiency of battery	94.6%
Max. DisCharging efficiency of battery	94.6%

### Protection

PV reverse polarity protection	Yes
PV insulation detection	Yes
Ground fault monitoring	Yes
Over current protection	Yes
Over voltage protection	Yes
Battery soft start protection	Yes

### General Data

Ambient temperature range	-30°C...+60°C(Above 45°C Derating)
Standby Losses	< 5W
Topology	High frequency insulation(for bat)
DC-Switch	Yes
Degree Of Protection	IP65
Allowable Relative Humidity Range	0-100%, No Condensing
Certification	NB/T32004-2013,AS4777,IEC62116,VDE0126-1G83/2,G59/3,EN50438,VDE-AR-N4105
Communication	RS485,Wi-Fi/GPRS,SD,CAN2.0
Protective class	Class I
Max. Operating Altitude	2000m
Current Sensor Connection	External
Noise	< 25dB
Weight	20.5kg
Cooling	Natural
Dimension (W*H*D)	566*394*173
Display	LCD display
Warranty	5 Years or more










# HYD 6K-EP

## Single-Phase Energy storage integrated inverter



-  Outdoor IP65 design
-  Avariety of work modes are optional
-  Built-in zero export fuction
-  Integrated fanless self-recognition heat dissipation design
-  Compatible with on grid and off grid
-  EPS function, switching time is less than 10ms
-  Flexible configuration of lead acid or lithium battery



## Battery Parameters

Battery Type	Lithium-ion, Lead-acid
Nominal battery voltage	48V
Battery voltage range	42-58V
Battery Capacity	50-2000Ah
Maximum Charging / Discharging Power	5000W
Maximum Charging Current	100A (Programmable)
Maximum Discharging Current	100A (Programmable)
Charging curve(Lithium-ion)	BMS
Charging curve(Lead-acid)	3-Stage adaptive with maintenance
Depth of discharge	Lithium-ion: 0-90% DOD adjustable, Lead-acid:0-50% DOD adjustable

## Input DC(PV side)

Recommended Max. PV input power	7980W
Max DC power for single MPPT	3500W
Max. input voltage	600V
Start-up voltage	120V
Nominal DC Voltage	360V
MPPT operating voltage range	90-580V
Full power MPPT voltage range	300V-520V
MPPT number	2
The max DC input current	12A/12A
The max DC input short current	15A/15A

## Output AC(Grid side)

Rated Power	6000W
Max. Output Power	6000VA
Nominal Grid Voltage	L/N/PE, 220, 230, 240
Operation phase	Single (L-N-PE)
Max. Input / Output current	50.0A/27.3A
AC voltage Range	180V~276V (According to local standard)
Grid Frequency range	44-55Hz/54-66Hz (According to local standard)
THD	<3%
Power factor	1 default (+/-0.8 adjustable)

## Output AC(Emergency Power Supply)

EPS rated power	5000VA
Operation phase	Single (L-N-PE)
EPS rated voltage,Frequency	230V, 50/60Hz
EPS rated current	24.5A
Peak Output Apparent Power	6900VA, 10s
THD	180-276Vac (According to local standard)
Switch time	10ms default

## Efficiency

MPPT efficiency	99.9%
Max efficiency of solar Inverter	97.6%
European efficiency of solar Inverter	97.2%
Max. Charging efficiency of battery	94.6%
Max. DisCharging efficiency of battery	94.6%

## Protection

PV reverse polarity protection	Yes
PV insulation detection	Yes
Ground fault monitoring	Yes
Over current protection	Yes
Over voltage protection	Yes
Battery soft start protection	Yes

## General Data

Ambient temperature range	-30°C~ +60°C (Above 45°C Derating)
Standby Losses	< 10W
Topology	High frequency insulation (for bat)
DC-Switch	Yes
Degree Of Protection	IP65
Allowable Relative Humidity Range	0~ 100%
Communication	RS485, Wifi/Ethernet/GPRS, SD, CAN2.0
Protective class	Class I
Max. Operating Altitude	2000m
Current Sensor Connection	External
Noise	< 25dB
Weight	23.5kg
Cooling	Natural
Dimension (W*H*D)	566*394*173 mm
Display	LCD display
Warranty	5 Years or more

## Standard







EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12
Safety standards	IEC62109-1/2, IEC62040-1, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)
Grid standards	AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN50438/EN50549, G83/G59/G98/G99, UTE C15-712-1, UNE 206 007-1



# HYD 15kTL-3PH



## Three-Phase Energy storage integrated inverter

-  4 MPPT input, more flexible configuration
-  Diversified work patterns and rapid gains
-  Multiple parallel systems, more flexible system solutions
-  Off-grid output can be connected to unbalanced load, three-phase separate output is supported
-  APF mode, improved grid power quality
-  Full digital control, higher control accuracy



# Datasheet

HYD  
I 5000TL-3PH

## Battery Parameters

Battery type	Li-Ion
Battery voltage range	200V-750V
Rated Charge/Discharge current	25A
Charging strategy	Follow BMS
Rated Charge/Discharge power	15000W
Max Charge/Discharge Power	18750W < 10min 22500W < 1min
DC Connector/Quality	MC PV Connector/2

## PV Input

Recommended Max. PV input power	19950W
Max input voltage	1000V
Start-up voltage	180V
MPPT operating voltage range	160V-960V
Rated voltage	600V
Full power MPPT voltage range	500V-850V
Max. Input current	25A/25A
Max short-circuit current	32.5A/32.5A
MPPT Number/ String number of each MPPT	2/2+2

## Off-Grid Output

Rate output voltage	230V/400V (+-10%)
THDv@ full load	3%
Rate output current	3*21.8A
Max output current	3*33A < 1min
Output frequency	50/60HZ
Rated output power	15000W
Parallel connection	Yes
Single phase output	Yes
AC terminal	5P Terminal Block

## ON-Grid Output

Rated output power	15000W
Max output power	16500VA
Max output current	3*25A
Output voltage	230/400V; (184-275V) [According to local standard]
Output frequency	50Hz/60Hz
Output power factor	0.8leading- 0.8lagging
THDi@ full load	<3%
Grid type	3/N/PE

## Efficiency

Max efficiency	98.1%
Europe efficiency	97.6%
MPPT efficiency	99.9%

## Protection

Input anti-reverse	Yes
Output over-current	Yes
Output over-voltage	Yes
Anti-islanding	Yes
RCMU	Yes
Insulation resistance monitoring	Yes
Surge protection	III
SPD protection	III

## General Data

Allowable relative humidity range	0~100%
Weight	30kg
Ambient temperature range	-25°C~+60°C
Noise	≤45dB(A)
Max. Operating altitude	2000m
Topology	Transformer-less
Cooling	Fan
Degree of protection	IP65
Dimension	560*570*230mm
Warranty	5 Years or more

## Feature

DC terminal	MC4
Display	LCD Graphic
Monitoring	RS485/WIFI/GPRS/Ethernet
Battery communication port	CAN
Meter communication	CAN
Parallel connection Communication	CAN + Sync + Error Diagnosis
Digital input	6 digital inputs (5V TTL)

## Standard

EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12
Safety standards	IEC62109-1/2, IEC62040-1, IEC62116, IEC61727, IEC-61683, IEC60068(1,2,14,30)
Grid standards	AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN50438/EN50549, G83/G59/G98/G99, UTE C15-712-1, UNE 206 007-1