

## HYD 3000~6000-EP

3000 / 4000 / 5000 / 6000kW

SOFAR

### SINGLE-PHASE ENERGY STORAGE INTEGRATED INVERTER

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#### Product advantages

- Various operational modes available
- Smart fanless cooling design
- Flexible configuration, allowing both lead-acid and lithium batteries
- EPS function (switchover time less than 10 ms)
- Built-in zero export function
- Supports both on- and off-grid operation
- IP65 design for outdoor



Datasheet	HYD 3000-EP	HYD 3680-EP	HYD 4000-EP	HYD 4600-EP	HYD 5000-EP*	HYD 5500-EP	HYD 6000-EP
<b>Battery Parameters</b>							
Battery type	Lithium-ion, Lead-acid						
Nominal battery voltage	48V						
Battery voltage range	42-58V						
Battery capacity	50-2000Ah						
Max. charging / discharging power	3750W	4000W	4250W		5000W		
Max. charging current	75A	80A	85A		100A		
Max. discharging current	75A	80A	85A		100A		
BMS communication mode	RS485, CAN						
<b>Input DC (PV side)</b>							
Recommended max. PV input power	4500Wp	5400Wp	6000Wp	6900Wp		7500Wp	9000Wp
Max. input voltage	600V						
Start-up voltage	100V						
Rated input voltage	360V						
MPPT operating voltage range	90-550V						
Number of MPP trackers	2						
Max. input current per MPPT	13A / 13A						
Max. input short circuit current per MPPT	18A / 18A						
<b>Output / Input AC (Grid side)</b>							
Nominal AC power	3000W	3680W	4000W	4600W		5000W	6000W
Max. AC power output to utility grid	3300VA	3680VA	4400VA	4600VA	5000VA	5500VA	6000VA
Max. AC power from utility grid	6000VA	7360VA	8000VA	9200VA	10000VA		12000VA
Rated output current	13A	16A	17.4A	20A	21.7A	23.9A	26.1A
Max. AC current output to utility grid	15A	16A	20A	20.9A	21.7A	25A	27.3A
Max. AC current from utility grid	27.3A	32A	36.4A	41.8A	43.4A		54.6A
Nominal grid voltage	L / N / PE, 230 Vac						
Grid voltage range	180-276 Vac						
Nominal frequency	50 Hz / 60 Hz						
Output THDi (@Nominal output)	< 3%						
Power factor	1 (+/-0.8 adjustable)						
<b>Output AC (Emergency Power Supply)</b>							
Max. apparent power	3000VA	3680VA	4000VA	4600VA		5000VA	
Peak output power, duration	3600VA, 60s	4400VA, 60s	4800VA, 60s	5520VA, 60s		6000VA, 60s	
Max. output current	13.6A	16A	18.2A	20.9A		22.7A	
Rated output voltage	220 / 230V						
Rated output frequency	50 / 60Hz						
THDv (@Symmetrical load)	< 3%						
Switch time	10 ms						
<b>Efficiency</b>							
MPPT efficiency	99.9%						
Max. efficiency of solar inverter		97.6%			97.8%		98.0%
European efficiency of solar inverter		97.2%			97.3%		97.5%
Max. charging efficiency of battery	94.6%						
Max. discharging efficiency of battery	94.6%						
<b>Protection</b>							
PV reverse polarity protection	Yes						
PV insulation detection	Yes						
Ground fault monitoring	Yes						
Overcurrent protection	Yes						
Overvoltage protection	Yes						
DC switch	Optional						
Firm frequency response function	Optional						
SPD protection	MOV, Type III standard						
<b>General Data</b>							
Ambient temperature range	-30°C ~+60°C (above 45°C derating)						
Standby self-consumption	< 10W						
Topology	High frequency insulation (for battery)						
Degree of protection	IP65						
Allowable relative humidity range	0-100%						
Communication	RS485/Bluetooth/CAN2.0/ Ethernet, Optional: WiFi						
Max. operating altitude	4000m						
Weight	21.5kg						
Cooling	Natural						
Dimension (W*H*D)	482*503*183mm						
Display	LCD						
<b>Standard</b>							
EMC	EN61000-1,EN61000-2,EN61000-3,EN61000-4,EN61000-4-16,EN61000-4-18,EN61000-4-29						
Safety standards	IEC 62109-1 / 2, IEC62040-1, IEC62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30)						
Grid standards	VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN 50549, C83 / C59 / C98 / C99, UTE C15-712-1, UNE 206007-1						

\* All specifications are subject to change without notice.

The models marked with "\*" should be available only for some designated countries.