SOFAR SOLAR

HYD 3K~6K-EP

3000/3680/4000/4600/5000/5500/6000

Single-Phase

Energy storage integrated inverter

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

Datasheet	HYD 3000-EP	HYD 3680-EP	HYD 4000-EP	HYD 4600-EP	HYD * 5000-EP (Australia)	HYD 5500-EP	HYD 6000-EP
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	4500Wp	5400Wp	6000Wp	6900Wp	7500Wp	7500Wp	9000Wp
Max DC power for single MPPT	3500W						
Max. input voltage	600V						
Start-up voltage	100V						
Rated input voltage	360V						
MPPT operating voltage range	90-580V						
Full power MPPT voltage range	160V-520V	180V-520V	200V-520V	230V-520V	250V-520V	250V-520V	300V-520V
Number of MPP trackers	2						
Max. input current per MPPT	13A/13A						
Max. input short circuit current per MPPT	18A/18A						
Output / Input AC (Grid side)							
Nominal AC power	3000W	3680W	4000W	4600W	5000W	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	10000VA	12000VA
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	40.8A	43.4A	43.4A	54.6A
Nominal grid voltage	L/N/PE, 220V, 230V, 240V						
Grid voltage range	180Vac-276Vac (According to local standard)						
Nominal frequency	50Hz / 60Hz						
Output THDi (@Nominal output)	<3%						
Power factor	1 default (+/-0.8 adjustable)						
Output AC (Emergency Power Supply)							
Max. apparent power	3000VA	3680VA	4000VA	4600VA	5000VA	5000VA	5000VA
Peak output power,Duration	3600VA, 60s	4400VA, 60s	4800VA, 60s	5520VA, 60s	6000VA, 60s	6000VA, 60s	6000VA, 60s
Max. output current	13.6A	16A	18.2A	20.9A	22.7A	22.7A	22.7A
Nominal voltage, Frequency	220V/230V, 50/60Hz						
THDv (@Liner load)	<3%						
Switch time	10ms default						
Efficiency							
MPPT efficiency	99.9%						
Max efficiency of solar inverter	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%	98.0%
European efficiency of solar inverter	97.2%	97.2%	97.2%	97.3%	97.3%	97.3%	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						
DC switch	Yes						
Firm frequency response function	Optional						
SPD protection	MOV: Type III standard						
General Data							
Ambient temperature range	-30℃~+60℃ (Above 45℃ Derating)						
Standby self-consumption	<10W						
Topology	High frequency insolation (for bat)						
Degree of protection	IP65						
Allowable relative humidity range	0~100%						
Communication	RS485, Wifi/Ethernet/GPRS, CAN2.0						
Protective class	Class I						
Max. operating altitude	4000m						
Current sensor connection	External						
Noise	<25dB						
Weight	22.5kg						
Cooling	Natural						
Dimension	482*503*183mm						
Display	LCD & APP+Bluetooth						
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, EN50549, G83/G59/G98/G99, UTE C15-712-1, UNE 206 007-1						

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