



HYD 3K~6K-HV

3000/3680/4000/4600/5000/6000

Single-Phase Energy storage integrated inverter



Outdoor IP65 design



Parallel operation with up to 10 units



A variety of work modes are optional



Compatible with on grid and off grid



Built-in zero export function



Flexible configuration of lead acid or lithium battery



EPS function, switching time is less than 10ms



Integrated fanless self-recognition heat dissipation design

Datasheet

HYD
3000-HV

HYD
3680-HV

HYD
4000-HV

HYD
4600-HV

HYD
5000-HV-A

HYD
5000-HV

HYD
6000-HV

Battery Parameters

Battery type	Lithium-ion, Lead-acid						
Battery voltage range	85-450V						
Battery capacity	50-2000Ah						
Maximum charging / Discharging power	3000W	4680W	4000W	4600W	5000W	5000W	6000W
Maximum charging current	25A						
Maximum discharging current	25A						
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	3500W	3500W	3500W	3750W	3750W	4500W
Max. input voltage	600V						
Start-up voltage	100V						
Rated input voltage	360V						
MPPT operating voltage range	85-550V						
Full power MPPT voltage range	125V-500V	150V-500V	195V-500V	195V-500V	208V-500V	208V-500V	250V-500V
Number of MPP trackers	2						
Max. input current per MPPT	18A/18A						
Max. input short circuit current per MPPT	22.5A/22.5A						

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	6600VA
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	30A
Max. AC current from utility grid	27.3A	32A	36.4A	41.8A	45.4A	45.4A	54.6A
Nominal grid voltage	L/N/PE, 220V, 230V, 240V						
Grid voltage range	180Vac-276Vac (According to local standard)						
Nominal frequency	50Hz / 60Hz						
THDi	<3%						
Power factor	1 default (+/-0.8 adjustable)						

Output AC (Emergency Power Supply)

Max. apparent power	3000VA	3680VA	4000VA	4600VA	5000VA	5000VA	6000VA
Peak output power, Duration	4500VA, 10s	5520VA, 10s	6000VA, 10s	6900VA, 10s	7500VA, 10s	7500VA, 10s	9000VA, 10s
Max. output current	13.6A	16.7A	18.2A	20.9A	22.7A	22.7A	27.3A
Nominal voltage, Frequency	220V/230V, 50/60Hz						
THDv	<3%						
Switch time	10ms default						

Efficiency

MPPT efficiency	99.9%						
Max efficiency of solar inverter	97.7%	97.7%	97.8%	97.8%	97.8%	97.8%	98.0%
European efficiency of solar inverter	97.27%						
Max. charging efficiency of battery(PV to battery)	98.0%						
Max. charging efficiency of battery(AC to battery)	96.6%						
Max. discharging efficiency of battery(Battery to AC)	96.6%						

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
DC switch	Yes
Firm frequency response function	Optional
AFCI protection	Optional
SPD protection	PV: Type III standard, AC: Type II standard

General Data

Ambient temperature range	-30℃~+60℃ (Above 45℃ Derating)
Standby self-consumption	<10W
Topology	Transformerless
Degree of protection	IP65
Allowable relative humidity range	0~100%
Communication	RS485/Bluetooth/CAN2.0/ Ethernet, Optional: WiFi/GPRS
Protective class	Class I
Max. operating altitude	4000m
Current sensor connection	External
Noise	<35dB
Weight	17kg
Cooling	Natural
Dimension	480*398*160mm
Display	LCD & APP+Bluetooth
Warranty	5 years, Optional: 7&10 years

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	IEC 62109-1/2, IEC 62040-1, IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30)
Grid standards	VDE-AR-N 4105, VDE V 0126-1-1, AS/NZS 4777, CEI 0-21, G98/G99, TR321, TR322, EN 50438/EN50549, UTE C15-712-1, NRS 097-2-1, UNE 206 007-1