Three Phase Hybrid Inverter

SUN-5/6/8/10/12/15/20/25K-SG01HP3-EU-AM2

- 100% unbalanced output, each phase
- AC couple to retrofit existing solar system
- *Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- Max. charging/discharging current of 50A
- High voltage battery, higher efficiency
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

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Stock Code: 605117.SH

Technical Data

Model	SUN-5K-SG01 HP3-EU-AM2	SUN-6K-SG01 HP3-EU-AM2	SUN-8K-SG01 HP3-EU-AM2	SUN-10K-SG01 HP3-EU-AM2	SUN-12K-SG01 HP3-EU-AM2	SUN-15K-SG01 HP3-EU-AM2	SUN-20K-SG01 HP3-EU-AM2	SUN-25K-SG01 HP3-EU-AM2
Battery Input Data								
Battery Type	Lithium-ion							
Battery Voltage Range (V)	160~700							
Max. Charging Current (A)	30		37					50
Max. Discharging Current (A)	30		37					50
Number of Battery Input	1							
Charging Strategy for Li-Ion Battery	Self-adaption to BMS							
PV String Input Data								
Max. DC Input Power (W)	6500	7800	10400	13000	15600	19500	26000	32500
Max. DC Input Voltage (V)	1000							
Start-up Voltage (V)	180							
MPPT Range (V)	150-850							
Full Load DC Voltage Range (V)	195-850	195-850	260-850	325-850	340-850	420-850	500-850	625-850
Rated DC Input Voltage (V)	600							
PV Input Current (A)	20+20				26+20		26+26	
Max. PV I_{SC}(A)	30+30				39+30		39+39	
No.of MPP Trackers	2							
No.of Strings per MPP Tracker	1+1				2+1		2+2	
AC Output Data								
Rated AC Output and UPS Power (W)	5000	6000	8000	10000	12000	15000	20000	25000
Max. AC Output Power (W)	5500	6600	8800	11000	13200	16500	22000	27500
AC Output Rated Current (A)	7.6/7.3	9.1/8.7	12.2/11.6	15.2/14.5	18.2/17.4	22.8/21.8	30.4/29	37.9/36.3
Max. AC Output Rated Current (A)	8.4/8	10/9.6	13.4/12.8	16.7/16	20/19.2	25/24	33.4/31.9	41.7/39.9
Max. Three-phase Unbalanced Output Current(A)	13	13	18	22	25	30	35	41.7
Max. Continuous AC Passthrough (A)	40				80			
Peak Power (off grid)	1.5 time of rated power, 10 S							
Generator Input/Smart Load /AC Couple Current (A)	7.6/40/7.6	9.1/40/9.1	12.2/40/12.2	15.2/40/15.2	18.2/80/18.2	22.8/80/22.8	30.4/80/30.4	37.9/80/37.9
Power Factor	0.8 leading to 0.8 lagging							
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac							
Grid Type	Three Phase							
Total Harmonic Distortion (THD)	<3% (of nominal power)							
DC Current Injection	<0.5% In							
Efficiency								
Max. Efficiency	97.60%							
Euro Efficiency	97.00%							
MPPT Efficiency	99.90%							
Protection								
Integrated	Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge Protection							
Over Voltage Category	DC Type II/AC Type III							
Certifications and Standards								
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105							
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2							
General Data								
Operating Temperature Range (℃)	-40-60°C, >45°C Derating							
Cooling	Free Cooling		Smart Cooling					
Noise (dB)	≤55 dB							
Communication with BMS	CAN							
Weight (kg)	30.5							
Cabinet Size (WxHxD mm)	408×638×237 (Excluding Connectors and Brackets)							
Protection Degree	IP65							
Installation Style	Wall-mounted							
Warranty	5 Years (10 Years Optional)							

*Note: Parallel operation for 5 inverters is usable. Parallel operation is currently being tested for up to ten inverters. The prerequisite for parallel operation is that only Deye high-voltage inverters with the same power and Deye high-voltage storage battery can be used.

Deye
Ningbo Deye Inverter Technology Co., Ltd.
Add: No. 26 South YongJiang Road, Daqi, Beilun, NingBo, Zhejiang, China. | Tel: 0086-0574-86120560 | E-mail: market@deye.com.cn