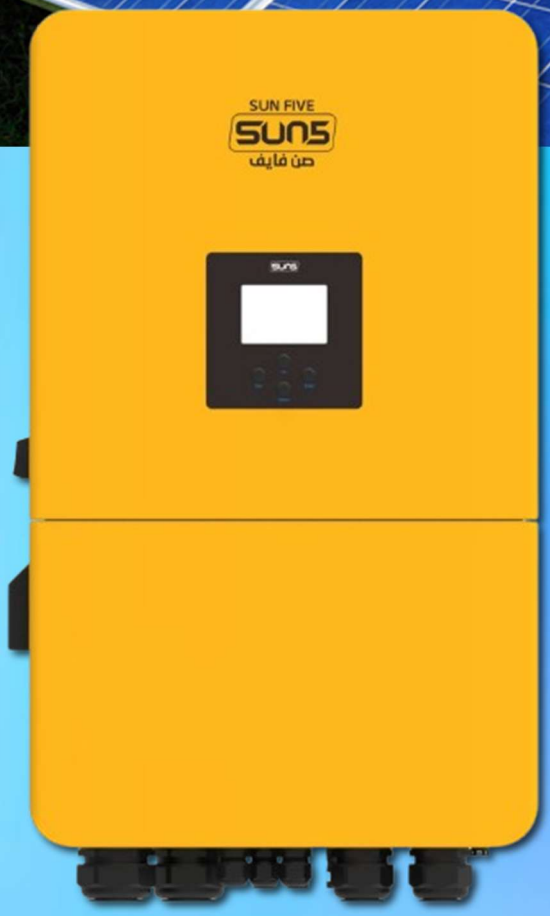
SUN5-16KVA & 20KVA HYBRID INVERTER





- 100% unbalanced output, each phase
- output up to 50% rated power
- 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 350A
- 48V low voltage battery, transformer isolation design
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator
- output up to 50% rated power

Model	SUN5 16K- 48V	SUN5 20K- 48V
Battery Type	Lead -acid or Lithium -ion	
Battery Voltage Range (V)	40-60	
Max. Charging Current (A)	300	350
Max. Discharging Current (A)	300	350
Charging Strategy for Li-ion Battery	Self-adaption to BMS	
Number of Battery Input	1	
PV String Input Data		
Max. PV Access Power (W)	32000	40000
Max. DC Input Power (W)	25600	32000
Max. DC Input Voltage (V)	800	
Start-up Voltage (V)	160	
MPPT Voltage Range (V)	200-650	
Rated DC Input Voltage (V)	550	
Max. Operating PV Input Current (A)	36+36	
Max. Input Short-Circuit Current (A)	54+54	
No. of MPPT Trackers/No.of String Per MPPT Tracker	2/2+2	
AC Input/Output Data		
Rated AC Input/Output Active Power (W)	16000	20000
Max. AC Input/Output Apparent Power (VA)	17600	22000
Rated AC Input/Output Current (A)	24.3/23.2	30.4/29
Max. AC Input/Output Current (A)	26.7/25.6	33.4/31.9
Max. Continuous AC Passthrough (grid to load) (A)	70	
Peak Power (off-grid) (W)	2 times of rated power, 10s	
Power Factor Adjustment Range	0.8 Leading to 0.8 Lagging	
Rated Input/Output Voltage/Range (V)	220/380V,230/400V 0.85U-1.1Un	
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65	
Grid Connection Form	3L+N+PE	
Total Current Harmonic Distortion THDi	<3% (of nominal power)	
DC Component of Grid	<0.5% In	
Efficiency		
Max. Efficiency	97.60%	
Euro Efficiency	97.00%	
MPPT Efficiency	>99%	
Equipment Protection		
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level	
Surge Protection Level	TYPE II(DC),TYPE II(AC)	
Interface		
Communication Interface	RS485/RS232/CAN	
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)	
General Data		
Operating Temperature Range (°C)	"-40 to +60°C, >45°C Derating	
Permissible Ambient Humidity	0-100%	
Permissible Altitude	3000m	
Noise	≤60	
Ingress Protection(IP) Rating	IP 65	
Inverter Topology	Non-Isolated	
Over Voltage Category	OVC II(DC), OVC III(AC)	
Cabinet Size (WxHxD mm)	456×750×268 (Excluding Connectors and Brackets)	
Weight (kg)	50.6	
Type of Cooling	Intelligent Air Cooling	
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	