

THREE PHASE HYBRID INVERTER

SunExpert TL6|8|10|12K-EU



• FEATURES

100% three-phase unbalanced output, with each phase capable of delivering up to 50% of the rated power

Ac coupling to retrofit Existing solar system

Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel

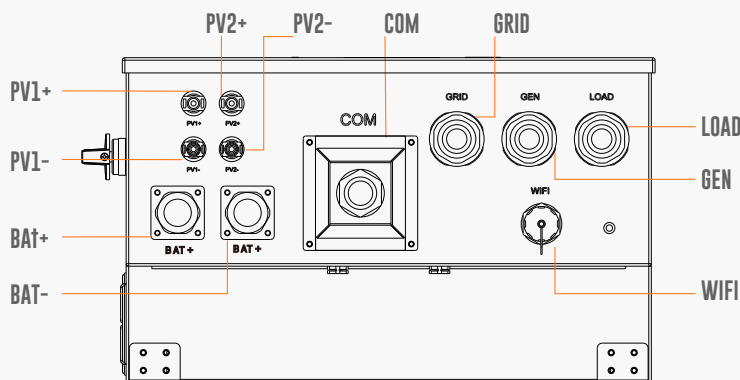
Max. charging/discharging current of 240A

48V low voltage battery, transformer isolation design

6 time periods for battery charging/discharging

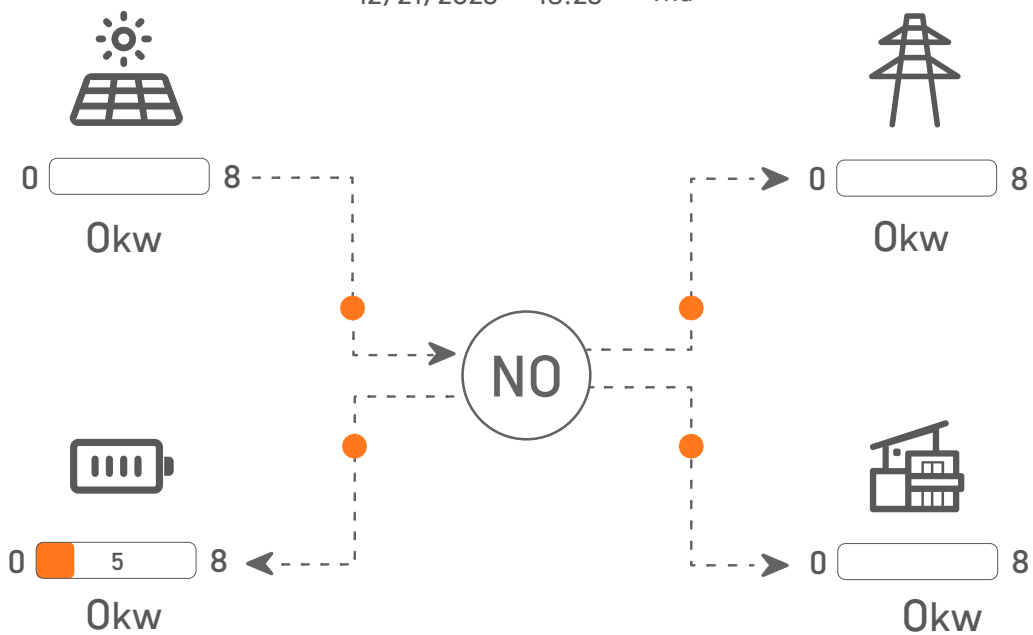
Support storing energy from diesel generator

• PRODUCT CHARACTERISTICS

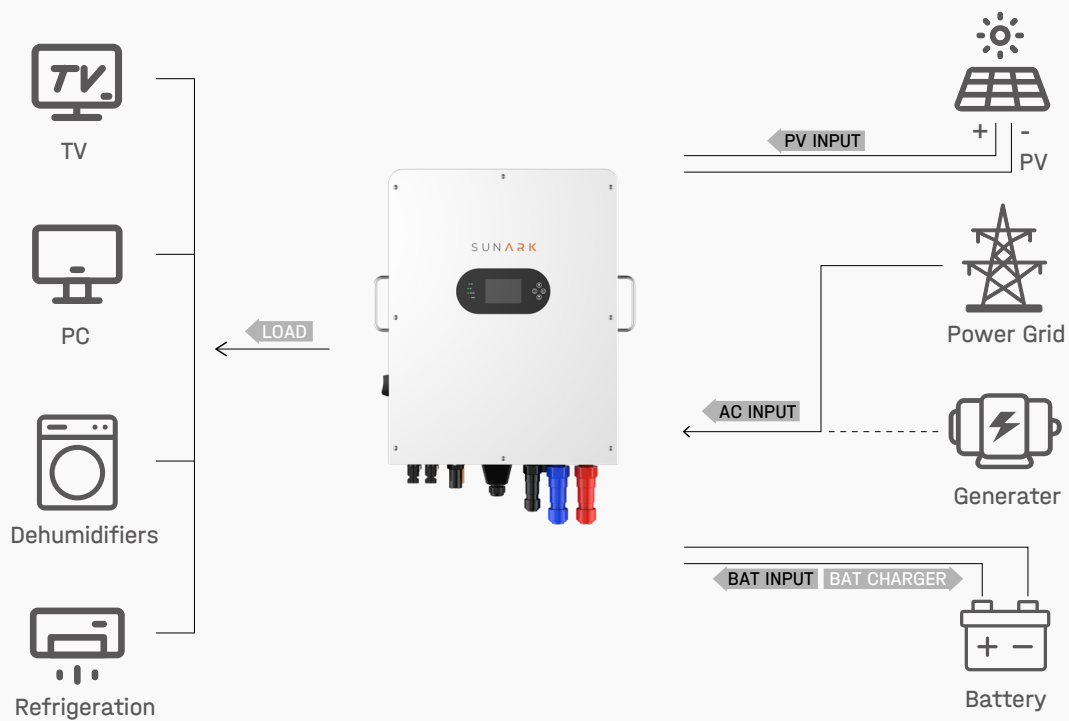


Model	SunExpert TL6K-EU	SunExpert TL8K-EU	SunExpert TL10K-EU	SunExpert TL12K-EU
PV String Input Data				
Max. DC Input Power (W)	7800	10400	13000	15600
Rated PV Input Voltage (V)	550 (160-800)			
Start-up Voltage (V)	160			
MPPT Voltage Range (V)	200-650			
Full Load MPPT Voltage Range (V)	350-650			
Max. DC Input Current(A)	13+13		26+13	
Max. DC Short Circuit Current(A)	17+17		34+17	
No.of MPPT Trackers	2			
No.of Strings per MPPT Tracker	1+1		2+1	
AC Output Data				
Rated AC Output Power (W)	6000	8000	10000	12000
Max AC Output Power (W)	6600	8800	11000	13200
AC Output Rated Current (A)	9.1	12.1	16.7	18.2
Max AC Output Current (A)	10	13.4	18.4	20
Max Output short circuit current (A)	75			
Max. Continuous AC Passthrough(A)	45			
Peak Power (off grid)	2 times of rated power, 10 S			
Power Factor	0.8 leading - 0.8 lagging			
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380Vac, 230/400Vac			
Grid Type	Three Phase			
Total Harmonic Distortion (THDi)	<3% (of nominal power)			
DC Current Injection	<0.5% In			
Battery Input Data				
Battery Type	40-60			
Battery Voltage Range (V)	Lead-acid or Lithium-ion			
Max. Charging Current (A)	120	160	200	240
Max. Discharging Current (A)	120	160	200	240
External Temperature Sensor	Yes			
Charging Curve	3 Stages / Equalization			
Charging Strategy for Li-Ion Battery	Self-adaption to BMS			
Efficiency				
Max. Efficiency	97.6%			
Euro Efficiency	97.0%			
MPPT Efficiency	99.0%			
Protection				
Anti-islanding Protection	Yes			
PV String Input Reverse Polarity	Yes			
Insulation Resistor Detection	Yes			
Residual Current Monitoring Unit	Yes			
Output Over Current Protection	Yes			
Output Shorted Protection	DC Type II/AC Type III			
Output overvoltage protection	Yes			
Photovoltaic input lightning	Yes			
Surge Protection	Yes			
Over Voltage Category	DC Type III / AC Type III			
Certifications and Standards				
Grid Regulation	IEC61727/62116,EN50549-1			
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			
General Data				
Operating Temperature Range (°C)	-40-60°C, >45°C Derating			
Cooling	Smart Cooling			
Noise (dB)	≤50 dB			
Communication with BMS	RS485; CAN			
Monitoring mode	Wi-Fi+APP			
Size (W x H x D mm)	37.5			
Protection Degree	702×422×281 (Excluding Connectors and Brackets)			
Installation Style	Ip65			
Warranty	Wall-mounted			
Weight (kg)	5 Years (10 Years Optional)			

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Lcd Display Icons



Basic System Architecture