CUSTOMER SUPPORT & TECHNICAL HELPLINE
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itel 6kW SP-HYBRID (Model: IHY-6KL1A)

Single-Phase ESS Hybrid Inverter | 7500W Max PV Input

7500W	200%	IP66
MAX PV INPUT	OVERLOAD @15S	RATING

Multi-Function Output
Supports On-Grid, Smart Load, and Back-up Load configuration.

High PV Input Power
PV Input up to 7500W with 120A Max MPPT Charging Current.

Powerful Performance
MPPT Tracking ≥99.9%, 200% Overload @15S, Max Grid Input 380V.

Solid Quality & Warranty
IP66 Anti-Dust & Waterproof design with 5-Year Replacement + Service Warranty.

High Efficiency
- MPPT Tracking Efficiency ≥ 99.9%.
- Max PV Conversion Efficiency 97.6%.
- European Efficiency rating of 97.0%.
- Battery mode conversion efficiency ≥ 97%.

Robust & Flexible
- Natural convection cooling (<40dB noise).
- Parallel operation capability up to 12 units.
- Diesel Generator & Smart Load support.
- 12000VA @ 15s Peak Backup Output Power.

Complete Protection
- IP66 Ingress Protection.
- DC Type II & AC Type III Surge Protection.
- PV Reverse & Insulation Impedance Detection.
- Residual current, overload & short circuit protection.

Technical Specifications (Model: IHY-6KL1A)

Smart Solar Official Datasheet

CATEGORY	SPECIFICATION DETAILS
SOLAR (PV) INPUT DATA	
Max. PV Input Power / Max. DC Input Voltage	7500 W / 500 V
Start-Up Voltage / MPPT Voltage Range	125 V / 150 V – 450 V
Max. Input Current / MPP Trackers	18A / 18A (2 MPPT Trackers)
AC OUTPUT & GRID RATINGS (ON-GRID / BACKUP)	
Nominal Output Power / Max Apparent Power	6000 W / 6000 VA
Nominal Voltage / Max Grid Input Voltage	220 VAC / 230 VAC | 380 Vrms Max Grid Input
Max Output Current / Voltage Range	27 A | 180 VAC – 280 VAC
Backup Peak Power & Overload	12000 VA @ 15s | 200% Overload Capacity @ 15s
Switch Time & Frequency Range	10 ms | 45 Hz – 65 Hz (50/60 Hz Nominal)
BATTERY & CHARGER PARAMETERS	
Battery Type & Voltage Range	Lead-acid / Lithium-ion / User Defined | 48V Nominal (40V – 60V)
Max Charging / Discharging Current	120A (MPPT) / 120A (Mains/Gen) / 120A (Discharging)
GENERAL & PHYSICAL SPECIFICATIONS	
Dimensions (D × W × H) / Weight	198 × 427 × 554 mm | 20 kg
Communication Ports / Cooling Method	WIFI / RS485 / CAN / Dry Contact | Natural Convection (<40 dB)
Certifications & Standards	IEC62109-1, IEC62109-2, IEC61683, IEC62116, IEC61727

- **5-Year Replacement Warranty**
- **IP66 Dust & Waterproof**
- **200% Surge @ 15 Seconds**
- **Smart Load & Generator Support**
- **Parallel Support (Up to 12 Units)**