

On/off-grid | Three Phase | Low Voltage

Hybrid Inverter

Isuna D6~12K-TL-AU Series
Isuna D6~12K-TL-S-AU Series



Model Name	Isuna D6K-TL-AU/ Isuna D6K-TL-S-AU	Isuna D8K-TL-AU/ Isuna D8K-TL-S-AU	Isuna D9.9K-TL-AU/ Isuna D9.9K-TL-S-AU	Isuna D10K-TL-AU/ Isuna D10K-TL-S-AU	Isuna D12K-TL-AU/ Isuna D12K-TL-S-AU
Off-grid Output					
Nominal Output Power	6kW	8kW	9.9kW	10kW	12kW
Nominal Output Apparent Power	6kVA	8kVA	9.9kVA	10kVA	12kVA
Max. Output Apparent Power	6.6kVA	8.8kVA	10.9kVA	11kVA	13.2kVA
Nominal Output Current	9A/8.6A	12A/11.5A	15A/14.3A	15.1A/14.4A	18.2A/17.3A
Rated Voltage	3/N/PE, 220/380Vac, 230/400Vac				
Frequency	50/60Hz				
THDu	<3%				
Switching Time	<10ms				
Peak Power & Duration	20kVA(10s)*				
Current (inrush)	30.3A - 10s				
Max. Output Fault Current	L1-L2(311.85A/1.025s),L1-N(253.0A/1.016s)				
Power Factor Range	-0.8 ~ 0.8				
On-grid Parameter					
Nominal Output Power	6kW	8kW	9.9kW	10kW	12kW
Nominal Output Apparent Power	6kVA	8kVA	9.9kVA	10kVA	12kVA
Max. Output Apparent Power	6.6kVA	8.8kVA	10.9kVA	11kVA	13.2kVA
Max. Current Output	10A	13.3A	16.5A	16.7A	20A
Nominal Current Output	9A/8.6A	12A/11.5A	15A/14.3A	15.1A/14.4A	18.2A/17.3A
Max. Grid Input Apparent Power	12kVA	16kVA	19.8kVA	20kVA	24kVA
Max. Grid Input Current	18.2A	24.3A	30A	30.3A	36.4A
Nominal Voltage	3/N/PE, 220/380Vac, 230/400Vac				
Grid Voltage Range	185-276V(P2N)				
Grid Frequency	50/60±5Hz				
Thdi	<3%				
Current (inrush)	40A/60us				
Max. Output Fault Current	L1-L2(91.25A/4.4ms),L1-N(153.75A/17.3ms)				
Power Factor Range	-0.8 ~ 0.8				

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PV Input					
Max. DC Input Power	12KW	16KW	18KW	18KW	18KW
MPPT Full Load Voltage Range	130-800V	160-800V	180-800 V	180-800V	240-800V
Starting Voltage	140V				
Max.Input Voltage	800V				
MPPT Voltage Range	130-800V				
MPPT Numbers	3				
Strings Per MPPT	1/1/1				
Max. DC Input Current	20A/20A/20A				
Max. Short-circuit Current	24A/24A/24A				
Generator Parameter					
Generator Voltage Range	184~276V(P2N)				
Max.Input Current	18.2A	24.3A	30A	30.3A	36.4A
Power Factor Range	-0.8 ~ 0.8				
Rated Grid Frequency	50 ~ 60Hz				
Grid Frequency Range	50/60±5Hz				
Battery Parameter					
Battery Type	Lithium-ion/Lead-Acid/Sodium-ion				
Number of Battery Input	2				
Battery Voltage Range	30-60V				
Max. Chg&Dchg Current	125A*2				
Peak Chg&Dchg Current	130A*2(60s)				
Efficiency					
Max. Efficiency	98.20%				
European Efficiency	97.70%				
Max. Battery Charging/ Discharging Efficiency	95.00%				
General Data					
Size(W*H*D)	465mm*665mm*165mm/465mm*665mm*175mm				
Weight	36kg				
Noise	<45dB(A)				
Operating Temperature	-25℃~+60℃ (>40℃ Derating)				
Operating Altitude	4000m(>3000m Derating)				
Topology	Non-isolated				
Cooling Method	Intelligent Air Cooling				
Ingress Protection Grade	IP65				
Communication Port	RS485*1,Wi-Fi/4G dongle*1,DO*2,DRM*1				
Monitoring	APP+LED				
Protection	DC Switch; Reverse Polarity Protection; AC Overvoltage/Overcurrent/Short Circuit Protection; Frequency disturbance Anti-islanding Protection; Residual Current Monitoring; Insulation Resistance Detection; Overvoltage Category: DC: II/AC: III; Protective Class: Class I; Surge Protection:DC Type II / AC Type III; AFCI(Optional); PID(Optional)				
Certification					
Safety Regulation	IEC62109-1&2, IEC62040-1				
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3,EN61000-6-4 EN 61000-4-16, EN 61000-4-18,EN 61000-4-29				
Grid Standards	VDE-AR-N 4105;VDE 0126-1-1 EN 50549-1;G98,G100; CEI 0-21;AS/NZS4777.2 NRS 097-2-1				
Country of Manufacture					
China	Shenzhen Sinexcel Isuna Energy Technology Co.,Ltd.				

*Overload output is dependent on sufficient PV and battery energy