

SOFAR 80-125KTLX-G4-ESS

80 / 99 / 100 / 110 / 125 kW

Three-phase hybrid inverter



Battery-ready & Load flexibility

- 200A DC-coupled battery port
- 10ms on/off-grid switching with STS
- Supports max. 20kW unbalanced load
- Supports max. 62.5kW in off-grid mode (200% for 2s)



Flexible PV input

- 9 MPPTs, 40A per MPPT
- 150% PV input power max



Advanced safety

- AFCI arc-fault detection
- DC SPD type I+II surge protection



Outdoor ready

- Engineered with IP66 rating and smart air cooling
- Lightweight for easy transport and installation

Model	SOFAR 80KTLX-G4-ESS	SOFAR 99KTLX-G4-ESS	SOFAR 100KTLX-G4-ESS	SOFAR 110KTLX-G4-ESS	SOFAR 125KTLX-G4-ESS
Input (DC)					
Max. input voltage	1100V				
Rated input voltage	625V				
Start-up voltage	200V				
MPPT operating voltage range	160V-1000V				
Number of MPP trackers	9				
Number for DC inputs	18				
Max. input MPPT current	9×40A				
Max. input short circuit current	9×50A				
Output (AC)					
Rated output power	80kW	99.99kW	100kW	110kW	125kW
Max. output apparent power	88kVA	99.99kVA	110kVA	121kVA	125kVA
Max. output current	133.7A@380V / 127.0A@400V / 122.4A@415V	151.9A@380V / 144.3A@400V / 139.1A@415V	167.1A@380V / 158.7A@400V / 153.0A@415V	183.8A@380V / 174.6A@400V / 168.3A@415V	190A@380V / 181.2A@400V / 174A@415V
Rated output voltage	3N++PE, 380V/400V/415V				
Output voltage range	310 - 480Vac				
Rated output frequency	50/60Hz				
Output frequency range	45Hz-55Hz / 55Hz-65Hz				
Active power adjustable range	0-100%				
THDi	<1% (@100%P)				
Power factor	0.8 leading - 0.8 lagging				
Max. asymmetric power	50%				
Output (Off-grid)					
Rated output voltage	3N++PE, 380/400/415 V.a.c.				
Rated output frequency	50 / 60Hz				
Rated output power	62.5kW				
Rated output current	94.9A				
Peak output apparent power	200%, 2s				
THDv (@ linear load)	3%				
Switching time	10ms. with STS				
Asymmetric load	100%				
Input (BAT)					
Battery type	Lithium-ion				
Numbers of battery	1-4				
Numbers of packs per battery	4-15				
Max. charge power	125kW				
Max. discharge power	88kW	99.99kW	110kW	121kW	125kW
DC voltage range	600-1000V				
Max. charge current	200A				
Max. discharge current	140.8A	160A	176A	193.6A	200A
BMS communication	RJ45, CAN*2 + DO*1				
Efficiency					
Max. efficiency	98.6%				
European efficiency	98.3%				
Protection					
DC reverse polarity protection	Yes				
Anti-islanding protection	Yes				
Leakage current protection	Yes				
Ground fault monitoring	Yes				
PV-array string fault monitoring	Yes				
DC switch	Yes				
PID recovery	Yes				
AFCI	Yes				
SPD	PV: type I+ II. AC: type II				
General Data					
Ambient temperature range	-30°C - +60°C				
Topology	Transformerless				
Degree of protection	IP66				
Allowable relative humidity range	0-100%				
Max. operating altitude	4000m (>3000m derating)				
Weight	80kg				
Cooling	Smart air cooling				
Dimension (W×H×D)	985×710×321mm				
Display	LCD & Bluetooth+APP				
Communication	Ethernet / RS485 / Wi-Fi /4G				
STS communication	RS485, DIO *2				
Standard	EN/IEC 62109-1/2, EN/IEC 61000-6-2/-4, IEC 61000-3-11/-12, EN 50530, EN 50549, VDE V 0126-1-1, VDE-AR-N 4105/4110, C10/11				

*All specifications are subject to change without notice.