

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 | CBS8000 | | | | |
| Numbers of battery | 1 - 4 | | | | |
| Numbers of packs per battery | 4 - 15 | | | | |
| Max. charge/discharge power | 125kW | | | | |
| DC voltage range | 600-1000V | | | | |
| Max. charge/discharge current | 200A / 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 | 90kg | | | | |
| 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.