



SPT8-15KTL-AM Series

Three-Phase On-Grid PV Inverter



Overview

The SPT8-15KT-AM series (Americas Edition) three-phase on-grid PV inverter adopts advanced MPPT control algorithms, maximizing the conversion of DC power from the PV array into AC power. The energy can be fed into the grid or utilized for self-consumption via CT/Meter detection, meeting diverse grid requirements across different regions. It is an ideal solution for residential and Small industrial & commercial applications.

Features

⚡ High Efficiency

- High yield with up to 110% rated power
- Maximum conversion efficiency 98.2%
- 2 MPPTs, Max. PV input voltage: 800VDC
Input current per MPPT: 32A

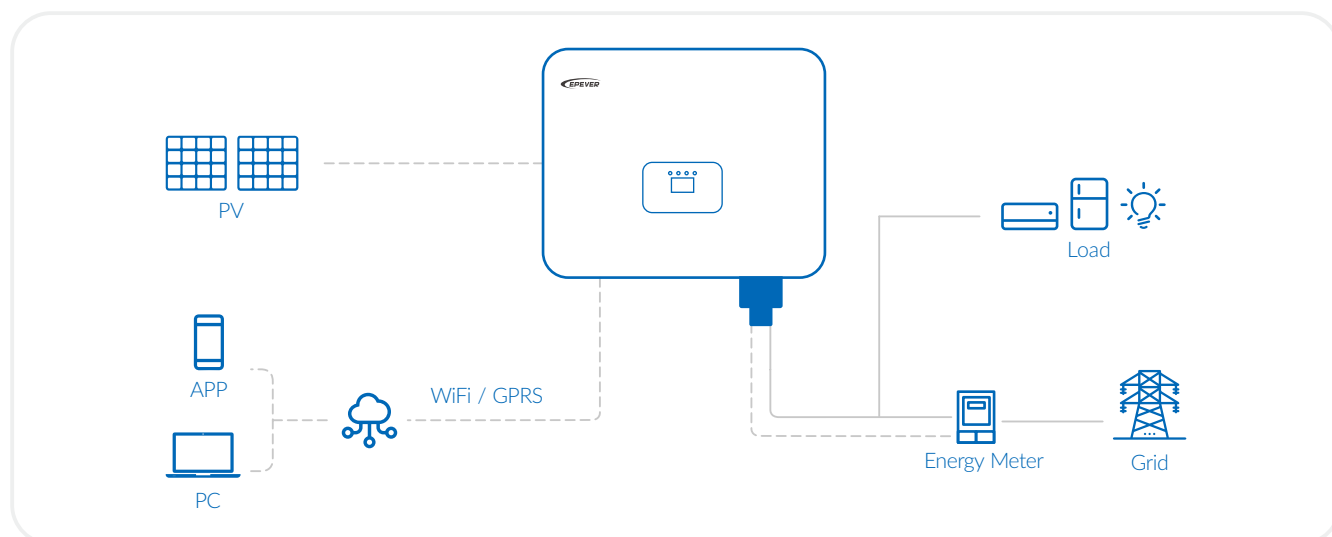
🛡️ Reliable & Safe

- IP65 protection for outdoor use
- Built-in DC Type II /AC Type III SPD
- Optional AFCI function
- Optional zero export function

👍 User-Friendly & Intelligent Monitoring

- Optional LCD display
- Standard USB communication port
WiFi / GPRS (optional)

Solution



Technical Specifications

Model	SPT8KTL-AM	SPT10KTL-AM	SPT12KTL-AM	SPT15KTL-AM
PV Input (DC)				
Max. Input Power	12,000W	15,000W	18,000W	22,500W
Max. Input Voltage	800V			
Start-up Voltage	250V			
Rated Input Voltage	400V			
Max. Input Current per MPPT	32A (16A × 2)			
Max. Short-Circuit Current per MPPT	40A			
MPPT Voltage Range	180 - 760V			
Number of MPPTs	2			
Number of Strings per MPPT	2			
AC Output				
Rated Output Power	8,000W	10,000W	12,000W	15,000W
Max.Output Apparent Power	8,800VA	11,000VA	13,200VA	15,000VA
Rated Output Current	22.2A/21A/19.2A	27.8A/26.3A/24A	33.3A/31.5A/28.8A	41.7A/39.4A/36A
Max. Output Current	24.5A	30.5A	36.8A	41.8A
Rated Grid Voltage	120/208V, 127/220V, 139/240V			
Rated Grid Frequency	50Hz/60Hz			
THDi	< 3%			
Power Factor	≈ 1 (Adjustable from 0.8 leading to 0.8 lagging)			
Efficiency				
Max. Efficiency	98.20%			
European Efficiency	97.50%			
Protection				
Basic Protection	• PV reverse polarity • PV insulation resistance • PV string current monitoring	• AC output overvoltage • AC output overcurrent • AC output short circuit	• Anti-islanding • Grid monitoring • Residual current (RCD) detection	
AFCI	Optional			
DC Switch	Integrated			
SPD	DC Type II / AC Type III			
Environmental Parameters				
Operating Temperature	-30°C to 60°C			
Relative Humidity	0 - 100%			
Altitude	4,000m(> 2,000m Derating)			
Ingress Protection	IP65			
Mechanical Parameters				
Dimensions (L×W×H) (mm)	520 × 430 × 210			
Weight(kg)	24.5	25		
Others				
Self-Consumption (Night)	< 1W			
Topology	Transformer-less			
Cooling Method	Natural	Intelligent fan		
Display	LED/WIFI+APP			
PV input Connector	H4/MC4(Optional)			
AC output Connector	OT connector			
Certifications	IEC62109, IEC61727, IEC62116			