

Single Phase Hybrid Storage Inverter

7-12 kW



The APEX AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 7kW to 12kW, compatible with low voltage (40-60V) batteries.

Energy management is based on time-of-use and demand charge rate structures, which significantly reduce the amount of energy purchased from the public grid.

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The AF low voltage series storage inverters are integrated with Arc Fault Circuit Interrupter (AFCI) and rapid shutdown.



MAX. 240A
Max. Charge/
Discharge Current 240A



Max. 1.5
PV OVERSIZE
1.5 Times PV Oversize



3
MPPT
MPPT CHANNELS
Up to 3 MPPT Channels



<10
ms
UPS FUNCTION
Switch Time < 10ms



PARALLEL
Max.6 Parallel Stacking



INPUT
Support Generator

Higher Yields

Support for Time-of-use Optimization

Configurable Operation Modes

Arc Fault Circuit Interrupter (AFCI) (Optional)

Colorful touch LCD, User-friendly

Build in Anti-feed-in Function

Compact Size and Easy Installation

Smart Monitoring & Remote Firmware Upgrade

Technical Data	AP-E-P1-7K	AP-E-P1-8K	AP-E-P1-9K	AP-E-P1-10K	AP-E-P1-11K	AP-E-P1-12K
PV Input						
Max. Input Power (kW)	10.5	12	13.5	15	16.5	18
Max. PV Voltage (V)	550					
MPPT Range (V)	80 - 500					
Full MPPT Range (V)	130 - 500	150 - 500	160 - 500	130 - 500	150 - 500	160 - 500
Normal Voltage (V)	360					
Startup Voltage (V)	100					
Max. Input Current (A)	18.5 x 3					
Max. Short Current (A)	26 x 3					
No. of MPP Tracker / No. of PV String	3 / 1+1+2					
Battery Port						
Max. Charge/Discharge Power (kW)	7.0	8.0	9.0	10	11	12
Max. Charge/Discharge Current (A)	200	200	240	240	240	240
Battery Normal Voltage (V)	51.2					
Battery Voltage Range (V)	40 - 60					
Battery Type	Li-ion / Lead-acid etc.					
AC Grid & Diesel Gen (Optional)						
Max Continuous Current (A)	32	37	41	46	50	55
Max Continuous Power (kVA)	7.0	8.0	9.0	10	11	12
Nominal Grid Current (A)	32 / 31	37 / 35	41 / 39	46 / 44	50 / 48	55 / 52
Nominal Grid Voltage (V)	198 to 242 @ 220 / 207 to 253 @ 230					
Nominal Grid Frequency (Hz)	50 / 60					
Power Factor	0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)					
Current THD (%)	< 3					
AC Load Output						
Max Continuous Current (A)	32	37	41	46	50	55
Max Continuous Power (kVA)	7	8	9	10	11	12
Max Peak Current (A) (10min)	31.4 / 30	55.5 / 52.5	61.5 / 58.5	69 / 66	75 / 72	82.5 / 78
Max Peak Power (kVA) (10min)	10.5	12	13.5	15	16.5	18
Nominal AC Voltage L-N (V)	220 / 230					
Nominal AC Frequency (Hz)	50 / 60					
Switching Time (ms)	Seamless					
Voltage THD (%)	< 3					
Efficiency						
European Efficiency (%)	98.1					
Max. Efficiency (%)	96.8					
Protection						
PV Reverse Polarity Protection	Yes					
Bat. Reverse Polarity Protection	Yes					
Over Current/Voltage Protection	Yes					
Anti-Islanding Protection	Yes					
AC Short Circuit Protection	Yes					
Residual Current Detection	Yes					
Ground Fault Monitoring	Yes					
PV Arc Detection	Yes					
Enclosure Protect Level	IP65 / NEMA4X					
General Data						
Dimensions (W x H x D, mm)	785 x 614 x 258					
Weight (kg)	43					
Topology	Transformerless					
Cooling	Intelligent Fan					
Relative Humidity	0 - 100 %					
Operating Temperature Range (°C)	- 25 to 60 (Derating 45)					
Operating Altitude (m)	< 2000					
Standby Consumption (W)	< 30					
Mounting	Wall Bracket					
Communication with RSD	SUNSPEC					
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G					
Certification & Approvals	NRS097, G98, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2					
EMC	EN61000-6-2, EN61000-6-3					