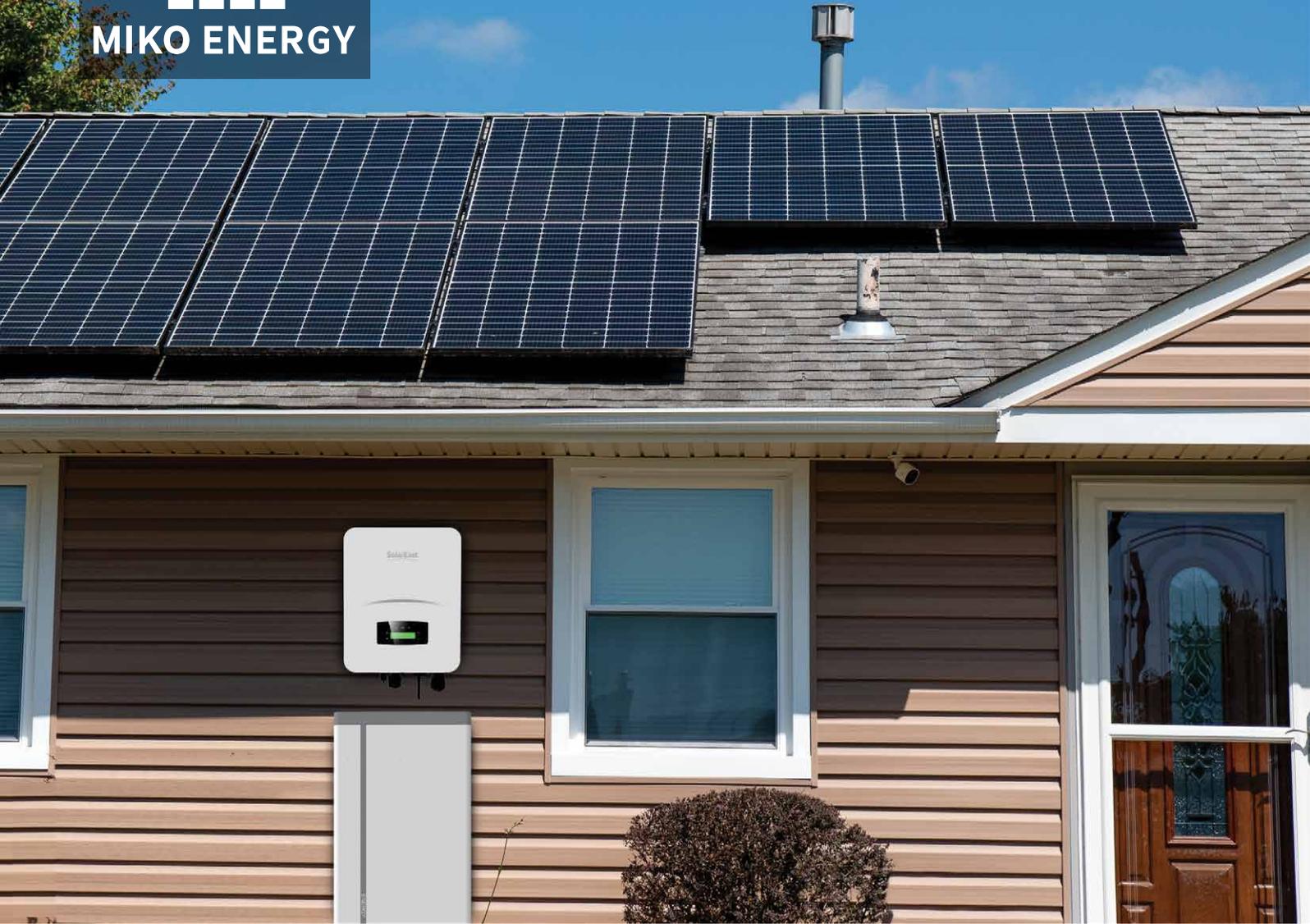




**MIKO ENERGY**



## **HYBRID INVERTER**

Single-Phase Residential  
Low Voltage

**8 - 12 kW**



# TECHNICAL SPECS

MODEL	Ares 8KLP	AF9K-KLP	AF10K-KLP	AF11K-KLP	AF12K-KLP
<b>PV Input</b>					
Max Input Power (kW)	12	13.5	15	16.5	18
Max PV Voltage (V)			550		
MPPT Range (V)			80 - 500		
Full MPPT Range (V)	150 - 500	170 - 500	190 - 500	210 - 500	230 - 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		
<b>Battery Port</b>					
Max Charge/Discharge Power (kW)	8.0	9.0	10	11	12
Max Charge/Discharge Current (A)	200	240	240	240	240
Battery Normal Voltage (V)			51.2		
Battery Voltage Range (V)			40 - 60		
Battery Type			Li-ion / Lead-acid etc.		
<b>AC Grid &amp; Diesel Gen (Optional)</b>					
Max Continuous Current (A)	37	41	46	50	55
Max Continuous Power (kVA)	8.0	9.0	10	11	12
Nominal Grid Current (A)	36.4 / 34.8	41 / 39.2	45.5 / 43.5	50 / 47.9	54.6 / 52.2
Nominal Grid Voltage (V)		198 to 242 @ 220 / 207 to 253 @ 230			
Nominal Grid Frequency (Hz)			50 / 60		
Power Factor	1 default (adjustable from 0.8 leading to 0.8 lagging)				
Current THD (%)			< 3		
<b>AC Load Output</b>					
Max Continuous Current (A)	37	41	46	50	55
Max Continuous Power (kVA)	8	9	10	11	12
Max Peak Current (A) (10min)	55.5	61.5	69	75	82.5
Max Peak Power (kVA) (10min)	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		
<b>Efficiency</b>					
European Efficiency (%)			98.1		
Max Efficiency (%)			96.8		
<b>Protection</b>					
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			IP66		
<b>General Data</b>					
Dimensions (W x H x D, mm)			785 x 614 x 258		
Weight (kg)			51		
Topology			Transformerless		
Cooling			Intelligent Fan		
Relative Humidity			0 - 100 %		
Operating Temperature Range (°C)			- 25 to 60 (Derating 45)		
Operating Altitude (m)			< 4000		
Standby Consumption (W)			< 30		
Mounting			Wall Bracket		
Communication with RSD			SUNSPEC		
Display & Communication Interfaces			LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G, Sunspec		
Certification & Approvals	NRS097, G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2				
EMC	EN61000-6-2, EN61000-6-3				