



MIKO ENERGY



HYBRID INVERTER

**3-Phase Residential
High Voltage**

12 - 25 kW



TECHNICAL SPECS

INVERTER

Ares 8KH3

Ares 12KH3

Ares 15KH3

Ares 17KH3

PV Input

Max. DC Input Power	12kW	18kW	22.5kW	25.5kW
Max. PV Voltage			1000V	
Rated DC Input Voltage			620V	
DC Input Voltage Range			150-1000V	
MPPT Voltage Range			150-850V	
Full MPPT Range	300-850V	500-850V	500-850V	500-850V
Start-up Voltage		160V		
Max. DC Input Current	20x2A	20x2A	20+32A	32x2A
Max. Short Current	30x2A	30x2A	30+48A	48x2A
No. of MPPT Tracker / Strings	2/2	2/2	2/3	2/4

Battery Port

Battery Nominal Voltage	300V	450V	500V	400V
Battery Voltage Range	150-800V	150-800V	150-800V	150-800V
Max. Charge/Discharge Current	30A	30A	50A	50A
Max. Charge/Discharge Power	8kW	12kW	15kW	17kW
Charging Curve		3 Stages		
Compatible Battery Type		Li-ion / Lead-acid / Sodium metal chloride battery		

AC Grid

Nominal AC Output Power	8kW	12kW	15kW	17kW
Max. AC Input/Output Power	12/8.8kVA	18/13.2kVA	22.5/16.5kVA	25.5/18.7kVA
Max. AC Output Current	17A	21.5A	27A	30A
Nominal AC Voltage			230/400V	
Nominal AC Frequency			50/60Hz	
Power Factor		1 (-0.8-0.8) adjustable		
Current THD			<3%	

AC Load Output (Back-up)

Nominal Output Power	8000VA	12000VA	15000VA	17000VA
Nominal Output Voltage			230/400V	
Nominal Output Frequency			50/60Hz	
Nominal Output Current	11.6A	17.4 A	21.8A	24.7A
Peak Output Power	8800VA, 60s	13200VA, 60s	16500VA, 60s	18700VA, 60s
THDV (with linear load)			<3%	
Switching Time			<10ms	

Efficiency

Europe Efficiency	97.50%	97.50%	97.50%	97.80%
Max. Efficiency	98.20%	98.30%	98.30%	98.30%
Battery Charge/Discharge Efficiency		98.00%		

Protection

Reverse Polarity Protection	Yes
Over Current / Voltage Protection	Yes
Anti-islanding Protection	Yes
AC Short-Circuit Protection	Yes
Leakage Current Detection	Yes
Ground Fault Monitoring	Yes
Grid Monitoring	Yes
Enclosure Protect Level	IP65
AC/DC surge protection	Type II

General Data

Dimensions	558 x 535 x 260 mm			
Weight	29kg			
Topology	Transformerless			
Cooling Concept	Intelligent Fan			
Relatively Humidity	0-100%			
Operating Temperature Range	-25 to 60°C			
Operating Altitude	<4000m			
Noise Emission	<30dB	<40dB	<40dB	<40dB
Standby Consumption	<5W			
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G			
Certification & Approvals	NRS097, G98/G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2			
EMC	EN61000-6-2, EN61000-6-3			