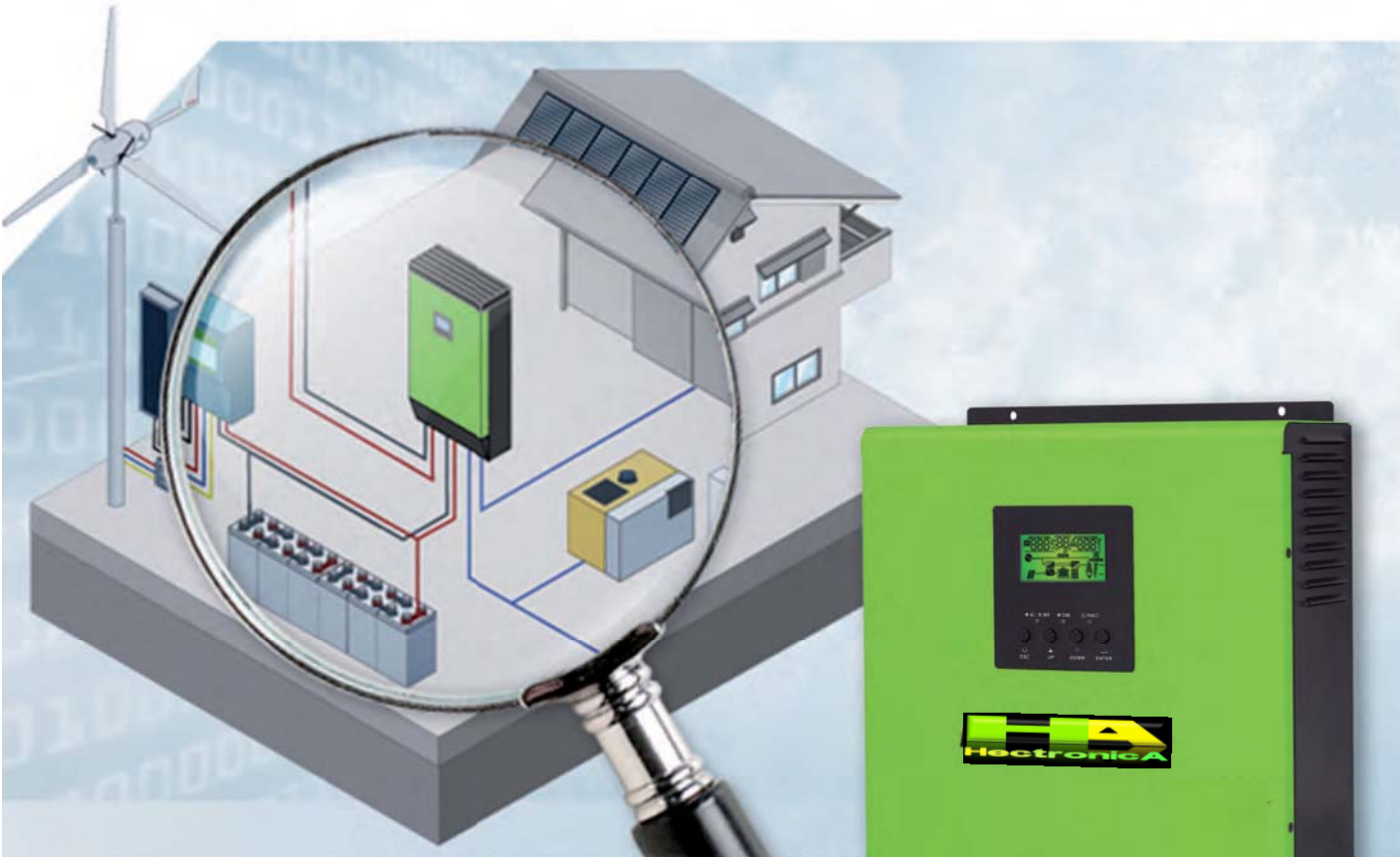


INVERTER SERIES

Off-Grid HELIOS

ON-Grid AETON



Intelligence
in your **installation**





HELIOS TOP Off-Grid



- Pure sine wave inverter
- Built-in MPPT solar charge controller
- Selectable input voltage range for home appliances and personal computers
- Selectable charging current based on applications
- Configurable AC/Solar input priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload and short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function
- Optional remote panel available

MODEL	HELIOS 2K-24	HELIOS 2K-48	HELIOS 3K-24	HELIOS 3K-48
Rated Power	2000VA/1600W	2000VA/1600W	3000VA/2400W	3000VA/2400W
INPUT				
Voltage	120 VAC or 230 VAC		230 VAC	
Selectable Voltage Range	95-140 VAC or 170-280 VAC (For Personal Computers) 65-140 VAC or 90-280 VAC (For Home Appliances)		170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)	
Frequency Range	50 Hz/60 Hz (Auto sensing)			
OUTPUT				
AC Voltage Regulation (Batt. Mode)	110/120 VAC ± 5% (User selectable) or 230VAC ± 5%		230VAC ± 5%	
Surge Power	4000VA		6000VA	
Efficiency (Peak)	90% - 93%			
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)			
Waveform	Pure sine wave			
BATTERY				
Battery Voltage	24 VDC	48 VDC	24 VDC	48 VDC
Floating Charge Voltage	27 VDC	54 VDC	27 VDC	54 VDC
Overcharge Protection	31 VDC	62 VDC	31 VDC	62 VDC
SOLAR CHARGER & AC CHARGER				
Maximum PV Array Power	1500 W	3000 W	1500 W	3000 W
MPPT Range @ Operating Voltage	30~ 115 VDC	60 ~ 115 VDC	30~ 115 VDC	60 ~ 115 VDC
Maximum PV Array Open Circuit Voltage	145 VDC			
Maximum Solar Charge Current	60A			
Maximum AC Charge Current	20 A or 30 A	10 A or 15 A	30 A	15 A
Maximum Efficiency	98%			
Standby Power Consumption	2 W			
PHYSICAL				
Dimension, D x W x H (mm)	140 x 295 x 479			
Net Weight (kgs)	11.5			
OPERATING ENVIRONMENT				
Humidity	5% to 95% Relative Humidity(Non-condensing)			
Operating Temperature	0°C - 55°C			
Storage Temperature	-15°C - 60°C			

Product specifications are subject to change without further notice



HELIOS PMS Off-Grid



- Pure sine wave inverter
- Built-in MPPT solar charge controller
- Selectable input voltage range for home appliances and personal computers
- Selectable charging current based on applications
- Configurable AC/Solar input priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload and short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function
- Parallel operation with up to 6 units only available for 4KVA/5KVA
- Optional remote panel available

MODEL	HELIOS PMS 1K-24	HELIOS PMS 1K-48	HELIOS PMS 2K-24	HELIOS PMS 3K-24	HELIOS PMS 3K-48	HELIOS PMS 4K	HELIOS PMS 5K	
Rated Power	1000VA/800W	1000VA/1000W	2000VA/1600W	3000VA/2400W	3000VA/2400W	4000VA/3200W	5000VA/4000W	
INPUT								
Voltage	230 VAC							
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)							
Frequency Range	50 Hz/60 Hz (Auto sensing)							
OUTPUT								
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%							
Surge Power	2000VA	4000VA	6000VA	8000VA	10000VA			
Efficiency (Peak)	90% - 93%		93%					
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)							
Waveform	Pure sine wave							
BATTERY								
Battery Voltage	24 VDC	48 VDC	24 VDC	24 VDC	48 VDC	48 VDC		
Floating Charge Voltage	27 VDC	54 VDC	27 VDC	27 VDC	54 VDC	54 VDC		
Overcharge Protection	31 VDC	62 VDC	31 VDC	31 VDC	62 VDC	60 VDC		
SOLAR CHARGER & AC CHARGER								
Maximum PV Array Power	600W	900W	600W	600W	900W	4000W		
MPPT Range @ Operating Voltage	30VDC ~ 66VDC	60VDC ~ 88VDC	30VDC ~ 66VDC	30VDC ~ 66VDC	60VDC ~ 88VDC	60VDC ~115VDC		
Maximum PV Array Open Circuit Voltage	75VDC	102VDC	75VDC	75VDC	102VDC	145 VDC		
Maximum Solar Charge Current	25A	18A	25A	25A	18A	80A		
Maximum AC Charge Current	20A	15A	30A	30A	15A	60 A		
Maximum Charge Current	25A	18A	30A	30A	18A	140A		
	AC charger and solar charger can't work at the same time.							
Maximum Efficiency	98%							
Standby Power Consumption	2 W							
PHYSICAL								
Dimension, D x W x H (mm)	100 x 272 x 355					120 x 295 x 468		
Net Weight (kgs)	6.8	7.0	7.4	11				
OPERATING ENVIRONMENT								
Humidity	5% to 95% Relative Humidity(Non-condensing)							
Operating Temperature	0°C - 55°C							
Storage Temperature	-15°C - 60°C							

Product specifications are subject to change without further notice

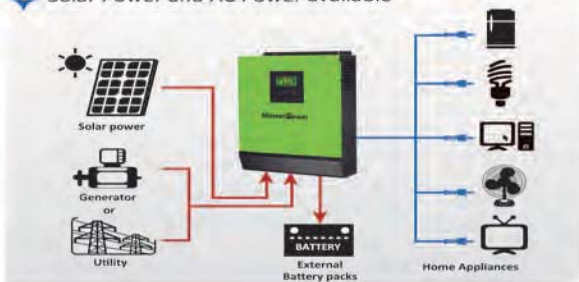


HELIOS MS Off-Grid

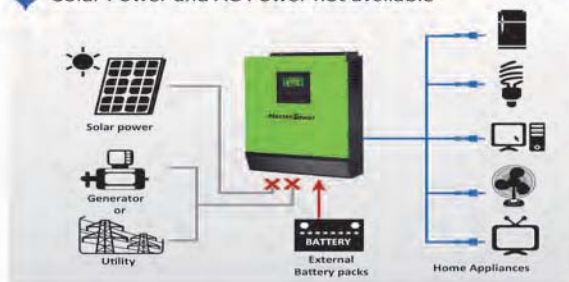


- Pure sine wave inverter
- Selectable input voltage range for home appliances and personal computers
- Selectable charging current based on applications
- Configurable AC/Solar input priority via LCD setting
- Compatible to mains voltage or generator power
- Parallel operation with up to 6 units only available for 4KVA/5KVA
- Auto restart while AC is recovering
- Overload and short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function
- Optional remote panel available

1 Solar Power and AC Power available



2 Solar Power and AC Power not available



MODEL	HELIOS MS 1K	HELIOS MS 2K	HELIOS MS 3K	HELIOS MS 4K	HELIOS MS 5K
Rated Power	1000VA / 800W	2000VA/1600W	3000VA / 2400W	4000VA / 3200W	5000VA / 4000W
INPUT					
Voltage	230 VAC				
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)				
Frequency Range	50 Hz/60 Hz (Auto sensing)				
OUTPUT					
AC Voltage Regulation (Batt. Mode)	230VAC \pm 5 %				
Surge Power	2000VA	4000VA	6000VA	8000VA	10000VA
Efficiency (Peak)	90%	93%			
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)				
Waveform	Pure sine wave				
BATTERY					
Battery Voltage	12 VDC	24 VDC		48 VDC	
Floating Charge Voltage	13.5 VDC	27 VDC		54 VDC	
Overcharge Protection	15.5 VDC	31 VDC		60 VDC	
SOLAR CHARGER & AC CHARGER					
Maximum PV Array Open Circuit Voltage	50VDC	60VDC		105VDC	
Standby Power Consumption	1 W	2 W		2W	
Maximum Solar Charge Current	50A	50A		50 A	
Maximum AC Charge Current	20 A	30 A		60 A	
Maximum Charge Current		50 A		110 A	
PHYSICAL					
Dimension, D x W x H (mm)	95 x 240 x 316	100 x 272 x 355		120 x 295 x 468	
Net Weight (kgs)	5.0	6.4	6.9	9.8	9.8
OPERATING ENVIRONMENT					
Humidity	5% to 95% Relative Humidity(Non-condensing)				
Operating Temperature	0°C - 55°C				
Storage Temperature	-15°C - 60°C				

Product specifications are subject to change without further notice.



HELIOS EU Off-Grid



- Pure sine wave inverter
- Enhance AC charger to 60A
- Wide battery input range
- Selectable input voltage range for home appliances and personal computers
- Selectable high power charging current
- Configurable AC/Solar input priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload and short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function

MODEL	HELIOS EU 1.5K-12	HELIOS EU 1.5K-24	HELIOS EU 3K-24
Rated Power	1500VA/1200W		3000VA/2400W
INPUT			
Voltage	220/230/240 VAC		
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)		
Frequency Range	50 Hz/60 Hz (Auto sensing)		
OUTPUT			
AC Voltage Regulation (Batt. Mode)	220/230/240VAC ± 5%		
Surge Power	3000VA	6000VA	
Efficiency (Peak)	90% ~ 93%		
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)		
Waveform	Pure sine wave		
BATTERY			
Battery Voltage	12 VDC	24 VDC	
Floating Charge Voltage	13.5 VDC	27 VDC	
Overcharge Protection	16 VDC	32 VDC	
SOLAR CHARGER & AC CHARGER			
Maximum PV Array Open Circuit Voltage	50 VDC	75 VDC	
Maximum Solar Charge Current	50 A		
Maximum AC Charge Current	60A		
Maximum Charge Current	110A		
PHYSICAL			
Dimension, D x W x H (mm)	100 x 272 x 355		
Net Weight (kgs)	6.6		
OPERATING ENVIRONMENT			
Humidity	5% to 95% Relative Humidity(Non-condensing)		
Operating Temperature	-20°C to 55°C		
Storage Temperature	-30°C to 60°C		

Product specifications are subject to change without further notice



HELIOS TOP DUO/TRI Off-Grid



- Pure sine wave inverter
- Built-in 2 or 3 strings of MPPT solar charge controller depending on models
- Enhanced AC charger to 60A
- Wide battery input range
- Selectable input voltage range for home appliances and personal computers
- Selectable high power charging current
- Configurable AC/Solar input priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload and short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function
- Optional SNMP card

MODEL	HELIOS TOP DUO 1.5K-12	HELIOS TOP DUO 1.5K-48	HELIOS TOP DUO 3K-24	HELIOS TOP DUO 3K-48	HELIOS TOP DUO 5K	HELIOS TOP DUO 5K
Rated Power	1500VA/1200W		3000VA/2400W		5000VA/4000W	
INPUT						
Voltage	230 VAC					
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)					
Frequency Range	50 Hz/60 Hz (Auto sensing)					
OUTPUT						
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%					
Surge Power	3000VA		6000VA		10000VA	
Efficiency (Peak)	90% ~ 93%					
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)					
Waveform	Pure sine wave					
BATTERY						
Battery Voltage	12 VDC	48 VDC	24 VDC	48 VDC	48 VDC	48 VDC
Floating Charge Voltage	13.5 VDC	54 VDC	27 VDC	54 VDC	54 VDC	54 VDC
Overcharge Protection	16 VDC	62 VDC	32 VDC	62 VDC	60 VDC	60 VDC
SOLAR CHARGER & AC CHARGER						
Maximum PV Array Power	1000W	2000W	2000W	2000 W	6000W	9000W
MPPT Range @ Operating Voltage	15~80 VDC	60 ~ 90 VDC	30~80 VDC	60 ~ 90 VDC	60~115Vdc	
Maximum PV Array Open Circuit Voltage	100 VDC				145 VDC	
Maximum Solar Charge Current	80A	40A	80A	40A	120A	180A
Maximum AC Charge Current	60A					
Maximum Charge Current	140 A	100 A	140 A	100 A	180 A	240 A
Maximum Efficiency	98%					
PHYSICAL						
Dimension, D x W x H (mm)	124 x 272 x 400				194 x 295 x 455	
Net Weight (kgs)	8.0				16	17
OPERATING ENVIRONMENT						
Humidity	5% to 95% Relative Humidity(Non-condensing)					
Operating Temperature	-20°C to 55°C					
Storage Temperature	-30°C to 60°C					

Product specifications are subject to change without further notice



AETON On-Grid Inverter with Energy Storage



- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable battery charging current suits different types of batteries
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in timer for various mode of on/off operation
- Multiple communication for USB, RS-232, Modbus and SNMP
- Monitoring software for real-time status display and control

Is a flexible and intelligent hybrid inverter which utilizes solar power, AC utility, and battery power source to supply continuous power. It's a simple and smart solar power storage system for home users to either store energy into a battery and wait for night-time usage or use for self-consumption first depending on demands. Priority for power source can be programmed and set up through smart software. During night time or power failure, it will automatically extract power from the battery. In this way, it will reduce dependence on the utility.



MODEL	AETON 2KW	AETON 3KW MPPT	AETON 5KW	AETON 5KW MPPT	AETON 3P 10KW
PHASE	1-phase in / 1-phase out				3-phase in / 3-phase out
MAXIMUM PV INPUT POWER	2250 W	4500 W	5000 W	10000 W	14850 W
RATED OUTPUT POWER	2000 W	3000 W	5000 W	5000 W	10000 W
MAXIMUM CHARGING POWER	1200 W		1500 W	4800 W	9600 W
GRID-TIE OPERATION					
PV INPUT (DC)					
Nominal DC Voltage / Maximum DC Voltage	300 VDC / 350 VDC	360 VDC / 500 VDC		720 VDC / 900 VDC	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	80 VDC / 120 VDC	116 VDC / 150 VDC		225 VDC / 250 VDC	320 VDC / 350 VDC
MPP Voltage Range	120 VDC ~ 320 VDC	250 VDC ~ 450 VDC	277 VDC ~ 450 VDC	250 VDC ~ 850 VDC	400 VDC ~ 800 VDC
Number of MPP Trackers / Maximum Input Current	1 / 1 x 15 A	1 / 1 x 18 A		2 / 2 x 10 A	2 / 2 x 18.6A
GRID OUTPUT (AC)					
Nominal Output Voltage	101/110/120/127 VAC		208/220/230/240 VAC		230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	88 - 127 VAC*		184 - 265 VAC*		184 - 265 VAC* per phase
Nominal Output Current	18 A	13 A	21 A	21 A	14.5A per phase
Power Factor	> 0.99				
EFFICIENCY					
Maximum Conversion Efficiency (DC/AC)	95%		96%		
European Efficiency@ Vnominal	94%		95%		
OFF-GRID OPERATION					
AC INPUT					
AC Start-up Voltage/Auto Restart Voltage	60 - 70 VAC / 85 VAC	120 - 140 VAC / 180 VAC			120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range	80 - 130 VAC	170 - 280 VAC		170 - 280 VAC per phase	
Maximum AC Input Current	30 A			40 A	
PV INPUT (DC)					
Maximum DC Voltage	350 VDC	500 VDC	500 VDC	900 VDC	900 VDC
MPP Voltage Range	150 VDC ~ 320 VDC	250 VDC ~ 450 VDC	277 VDC ~ 450 VDC	250 VDC ~ 850 VDC	400 VDC ~ 800 VDC
Number of MPP Trackers / Maximum Input Current	1 / 1 x 15 A	1 / 1 x 18 A	1 / 1 x 18 A	2 / 2 x 10A	2 / 2 x 18.6A
BATTERY MODE OUTPUT (AC)					
Nominal Output Voltage	101/110/120/127 VAC	202/208/220/230/240 VAC	220/230/240 VAC	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)
Output Waveform	Pure Sinewave				
Efficiency (DC to AC)	90%	93%			91%

HYBRID OPERATION					
PV INPUT (DC)					
Nominal DC Voltage / Maximum DC Voltage	300 VDC / 350 VDC	360 VDC / 500 VDC	360 VDC / 500 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	80 VDC / 120 VDC	116 VDC / 150 VDC	116 VDC / 150 VDC	225 VDC / 250 VDC	320 VDC / 350 VDC
MPP Voltage Range	150 VDC ~ 320 VDC	250 VDC ~ 450 VDC	277 VDC ~ 450 VDC	250 VDC ~ 850 VDC	400 VDC ~ 800 VDC
Number of MPP Trackers / Maximum Input Current	1 / 1 x 15 A	1 / 1 x 18 A	1 / 1 x 18 A	2 / 2 x 10A	2 / 2 x 18.6A
GRID OUTPUT (AC)					
Nominal Output Voltage	101/110/120/127 VAC	202/208/220/230/240 VAC	220/230/240 VAC	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	88-127 VAC*		184 - 264.5 VAC*		184 - 264.5 VAC* per phase
Nominal Output Current	18 A	13 A	21 A	21 A	14.5 A per phase
AC INPUT					
AC Start-up Voltage / Auto Restart Voltage	60 - 70 VAC / 85 VAC		120 - 140 VAC / 180 VAC		120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range	80 - 130 VAC		170 - 280 VAC		170 - 280 VAC per phase
Maximum AC Input Current		30 A		40 A	
BATTERY MODE OUTPUT (AC)					
Nominal Output Voltage	101/110/120/127 VAC	202/208/220/230/240 VAC	220/230/240 VAC	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)
Efficiency (DC to AC)	90%		93%		91%
BATTERY & CHARGER					
Nominal DC Voltage	48 VDC				
Maximum Charging Current	Default 25A, 5A - 25A (Adjustable)		Default 30 A, 5A - 30A (Adjustable)	Default 60A, 5A - 100A (Adjustable)	Default 60A, 10A - 200A (Adjustable)
GENERAL					
PHYSICAL					
Dimension, D X W X H (mm)	107 x 438 x 480			204.2 x 460 x 600	167.5 x 500 x 622
Net Weight (kgs)	15.5		16	29	45
INTERFACE					
Communication Port	RS-232/USB			RS-232/USB and CAN Interface	
Intelligent Slot	Optional SNMP, Modbus and AS-400 cards available				
ENVIRONMENT					
Humidity	0 ~ 90% RH (No condensing)				
Operating Temperature	0 to 40°C			-10 to 55°C	
Altitude	0 ~ 1000 m**				

*These figures may vary depending on different AC voltage and country requirements.
 **Power derating 1% every 100 m when altitude is over 1000m.
 Product specifications are subject to change without further notice.

