

HELIOS

OUTDOOR UPS
POWER SOLUTIONS



OUTDOOR UPS POWER SOLUTIONS

In our modern world, the electricity requirements is growing rapidly, along with the outdoor power solutions.

To ensure the vital outdoor electric systems keep running HELIOS power solutions steps in to provide thier wide range of products and flexible customized outdoor units.

FIELDS of OPERATION

- Traffic and Emergency Outdoor Lights
- CCTV Systems (Security and Traffic Cameras)
- Radar Systems
- Telecom Stations
- Military Systems

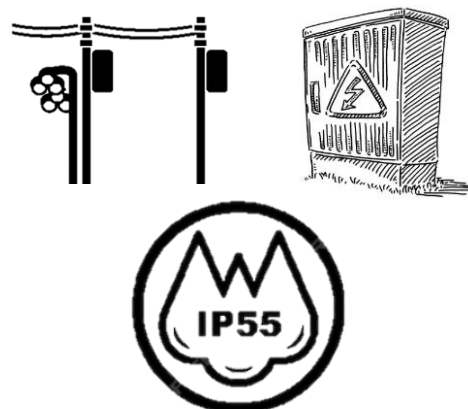
OUTDOOR UPS - PRODUCT RANGE



OUTDOOR UPS

Compact Type CCTV Units
Specialized for Militar App.
MILSPEC Approved

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OUTDOOR UPS

Specialized for Pole and Ground
Installation.
IP44 & IP55 Complete Pack

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CUSTOM OUTDOOR UPS

Customisable solutions for UPS
with different power options,
cabinet, high temperature
battery and different
communication systems

[Go to Products >>](#)

HELIOS HT SERIES



Multidirectional
Power



High Operating
Temperature



Outdoor
Applications



Remote
Monitoring



Chargers
Batteries



Fanless



Security



Telecom



Transportation



MAIN FEATURES

Input: 48Vdc & 230Vac

Output: 48Vdc & 230Vac

Power: 1kW and 1,6kW Units

- Power 230Vac and 48Vdc loads
- Operation Temperature -40°C to +70°C
- Compliant with MIL-STD 810&461
- Communication Module (Optional)

HT1KWMP(1kW) and HT1.6KWMP(1,6kW)

is designed and built for extreme environments: Corrosive atmosphere, environment exposed to heavy rain or water splashes, dusty, difficult access, extreme temperatures, high vibration, and shock.

OUTDOOR

- Telecom Antenna
- CCTV
- Traffic Lighting
- Offshore Wind/Oil Rigs

ONBOARD

- Outside Broadcasting
- Transportation Systems
- Military Operations



WHY HELIOS HT SERIES?

- Parallel Operation up to 3 units
- AC/DC Input and Output
- IP65 for harsh environments
- Fanless design for reliability
- Suitable for military applications
- Adjustable output voltage
- On-line Topology
- Constant regulated output

<<PRODUCT RANGE

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HT1KWMP

Specifications Table

General	
Model	HT1KWMP
Part Number	T711730105
Cooling	Natural convection
MTBF	200 000 hrs (MIL-217IF)
Dielectric strength DC/AC	4300 Vdc
RoHS / Material (casing)	Compliant / Aluminium
Operating T° / Relative Humidity	Compliant to ETSI 300-019-1-4 class 4.1E -40°C to +70°C derating above 50°C / 0-100%
Storage T° / Relative Humidity	Compliant to ETSI 300-019-2-4 class 4.1E -40°C to +70°C / 0 to 100%
Shock & Vibration	Design for on board vehicles and ship
Altitude above sea without de-rating of power	< 1500 m / derating > 1500 m – 0.8 % per 100 m / max 4000 m

Input Data	
AC Input Data	
Nominal voltage (AC) / Current	230 Vac / Max 5.4 Amps
Voltage range (AC)	150 - 265 Vac (derating below 195Vac)
Brownout	1000 W at 185 Vac linear decreasing
Power factor / THD	> 99% / < 3%
Frequency range (selectable) / synchronization range	50 Hz (range 47 – 53 Hz) / 60 Hz (range 57 – 63 Hz)
DC Input Data	
DC voltage: Nominal / range	48 Vdc / (40-60V)
Nominal current (at 48 Vdc and 900 W output)	20 A
Maximum input current (for 15 second) / voltage ripple	31 A / < 10 mV RMS

Output Data	
Efficiency AC to AC (EPC) / DC to AC / AC to DC	96% / > 93% / > 93%
Nominal voltage AC (Adjustable)	230 Vac (200 - 240 Vac)
Frequency / frequency accuracy	50 or 60 Hz / 0.03%
Nominal Output power	1200 VA / 1000 W @ 230 Vac
Short time overload capacity	150% (15 seconds)
Admissible load power factor	Full power rating from 0 inductive to 0 capacitive
Total harmonic distortion (resistive load)	< 3%
Load impact recovery time (10% - 90%)	≤ 0.4 ms
Nominal current	5.4 A @ 230 Vac
Crest factor at nominal power	3:1 for load P.F. ≤ 0.7
Short circuit clear up capacity at AC input / On battery	21 A for 20 ms
Short circuit current after >20 ms	8.1 A for 15 seconds
AC output voltage stability	±1% from 10% to 100% load
DC Output Data	
Nominal voltage (range)	53.5 Vdc (44 - 60 Vdc)
Maximum power	1000 W with 230 Vac input voltage
Maximum current at 48 Vdc	20 A
Reverse polarity protection	YES
Efficiency AC to DC	> 93%

Utility	
In Transfer Performance	
Max. Voltage interruption / total transient voltage duration (max)	0 sec / 0 sec
Signalling & Supervision	
Display	Synoptic LED
Safety & EMC	
Safety	EN62040-1
EMC	EN 61000-4-2 / EN 61000-4-3 / EN 61000-4-4 / EN 61000-4-5 / EN 61000-4-6 / EN 61000-4-8 ETSI EN 300386 v1.9.1

HT1.6KWMP-48

Specifications Table

General	
Model	HT1.6KWMP-48
Part Number	(TBA)
Cooling	Natural convection
MTBF	200 000 hrs (MIL-217F)
Dielectric strength DC/AC	4300 Vdc
RoHS / Material (casing)	Compliant / ZnNi powder coated & Aluminium
Operating T° / Relative Humidity	Compliant to ETSI 300-019-1-4 class 4.1E -40°C to +70°C derating above 50°C / 0-100%
Storage T° / Relative Humidity	Compliant to ETSI 300-019-2-4 class 4.1E -40°C to +70°C / 0 to 100%
Shock & Vibration	Design for on board vehicles and ship
Altitude above sea without de-rating of power	< 1500 m / derating > 1500 m – 0.8 % per 100 m / max 4000 m

Input Data	
AC Input Data	
Nominal voltage (AC) / Current	230 Vac / Max 7.2 Amps
Voltage range (AC)	90-295 Vac (derating below 125 Vac)
Brownout	900W at 90 Vac and 1600W at 125 Vac linear decreasing
Power factor / THD	> 99% / < 3%
Frequency range (selectable) / synchronization range	50 Hz (range 47 – 53 Hz) / 60 Hz (range 57 – 63 Hz)
DC Input Data	
DC voltage: Nominal / range	48 Vdc / (40-60V)
Nominal current (at 1600W)	36 A
Maximum input current (for 15 second) / voltage ripple	45 A @ 40 Vdc / < 10 mV RMS

Output Data	
Efficiency AC to AC / DC to AC /	96% / 93%
Nominal voltage AC (Adjustable)	230 Vac (100 - 240 Vac) [†]
Frequency / frequency accuracy	50 or 60 Hz / 0.03%
Nominal Output power (VA) / (W)	2000 VA / 1600 W @ 230 Vac, 1500 VA / 1200W @ 120 Vac
Short time overload capacity	150% (15 seconds)
Admissible load power factor	Full power rating from 0 inductive to 0 capacitive
Total harmonic distortion (resistive load)	< 3%
Load impact recovery time (10% - 90%)	≤ 0.4 ms
Nominal current	8.7 A @ 230 Vac, 12.5 A @ 120 Vac
Crest factor at nominal power	3 : 1 for load P.F. ≤ 0.7
Short circuit current	22.5 A for 15 seconds
AC output voltage stability	±1% from 10% to 100% load
DC Output Data	
Nominal voltage (range)	53.5 Vdc (44 - 60 Vdc)
Maximum power	1600 W
Maximum current at 48 Vdc	33.3 A
Reverse polarity protection	YES
Efficiency AC to DC	> 93%

Utility	
In Transfer Performance	
Max. Voltage interruption / total transient voltage duration (max)	0 sec / 0 sec
Signalling & Supervision	
Monitoring Device	HTCMBX with IP65 (optional)
Safety & EMC	
Safety	EN62040-1
EMC	EN 61000-4-2 / EN 61000-4-3 / EN 61000-4-4 / EN 61000-4-5 / EN 61000-4-6 / EN 61000-4-8 ETSI EN 300386 v1.9.1

HTCM BOX (COMMUNICATION)

(COMPATIBLE WITH HT1KWMP)

MONITOR & CONTROL DEVICE OF OUR HT SERIES OF OUTDOOR MULTIDIRECTIONAL CONVERTERS

MODBUS	SNMP	ENCRYPTION	Email alert
RS485 TCP(R/W)	V1, V2c, V3(R/W*)	HTTPS* or SSL/TLS*	SMTP & SNMP trap

HTCMBOX is an outdoor smart controller which provides fully monitor and control of the HT series power converters. It comes with advanced monitoring features to increase our customers experience and share the most relevant information, the best way and at the right time.

The advanced scripting tool gives us the opportunity to provide customized solutions to best adapt to your infrastructure and requirements. It also offers control features including, among others, battery management.

MAIN FEATURES

- IP65 / NEMA 4
- Real-time monitoring
- Wide operating temperature range
- Built in battery management
- Easy integration with 3rd party device
- Advanced web based user interface

ADDITIONAL FEATURES

- Web based monitoring and configuration
- Custom alarms and notifications
- Events log life
- Rugged design and construction
- 3 LEDs (Major&Minor alarm, Status)
- Aluminum power coated RAL7035



Security



Telecom



Transportation



PHYSICAL FEATURES

- 2.3kg Weight
- 295mm(W) x 71mm(H) x 155mm(D)

<<PRODUCT RANGE

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HT1.6KWMP-48

Specifications Table

General	
Model	HTCMBOX
Part Number	T602004145
Hardware Interfaces	1 x ETH, 1 x RS485, 1 x CAN, 1 x 19 Pin connector
Supported protocols	Modbus RS485, Modbus TCP, SNMP v1, v2C and v3, HTTP/HTTPS
Digital input / Output relay	2/2
Mounting	Pole / Wall / Panel / Door
Power supply	Internal power supply 12Vdc (from Modules)
Power consumption	5 W
Operating Temperature Range	-40 to 70°C
Dimension (W x H x D) mm	295 x 71 x 155
Weight	2.3 kg
Features	
Advanced web-based user interface	Yes (monitoring and configuration)
Email alert & notification	yes (SMTP & SNMP trap)
Custom alarms & notifications	Yes
Translation	Yes
Real-time monitoring	Yes
Events log file	Yes
Custom data recording	Yes*
Digital input mapping	Yes
Alarm relay mapping	Yes
Modbus	RS485 & TCP(R/W*)
SNMP	V1, V2c & V3 (R/W*)
HTTP based API	Yes
Encryption	HTTPS* or SSL/TLS*
* - On demand	

HELIOS ATROX SERIES



The ATROX 44 / 55 is a line of rugged UPS power systems used worldwide in the most demanding environments where clean backup power is needed, designed to perform in the most extreme demanding environments. Our ATROX 44 / 55 ensures that equipment in security, communications, traffic, industrial environments and many other critical applications remains safe and protected from power disturbances. Thanks to its powerful programmable battery charger, the ATROX 44 / 55 is capable of providing the runtime you need. Our ATROX 44 / 55 provides clean uninterrupted backup power in an all-in-one IP44 or IP55, keylocked and vandal resistant enclosure. The ATROX 44 / 55 comes along with cycle-proof, deep-discharge-proof and maintenance-free 10-12 years design life GEL batteries.

MAIN FEATURES

Input: 230Vac

Battery DC: 24V or 48Vdc

Output: 230Vac and 24Vac

Power: 350W, 650W, 1100W and 2000W

- IP44 or IP55 Protection class
- Output Power 350, 650, 1100 and 2000 Watts
- Vandal Resistance Rate IK10
- Wide operating temperature range of -40 °C to 74 °C suitable for the most extreme operating environments
- at extreme temperatures, extending the life of the battery
- Pole- / Wall Mount (S) or Ground Mount (G)
- Active ventilation system (IP55 System)

WHY ATROX SERIES?

- Enclosed design for full pack solution
- Internal battery
- Adjustable Battery Backup
- Battery Protection by compensated battery charge
- RS232, SNMP communication
- Customizable AC Output distribution
- High Temp (-40°C to +74°C)
(4°C higher than the equivalent units.)

ATROX 44 / 55 SERIES

Specifications Table

Technical Data					
Model	ATROX 44 / 55 – 350		ATROX 44 / 55 – 650	ATROX 44 / 55 – 1100	ATROX 44 / 55 – 2000
Output Power (Watt)	350		650	1100	2000
Operating Temperature Range	-40 °C to 60 °C				
Nominal Voltage Input	230 VAC				
Input Voltage Range	151 - 282 VAC without switching to battery operation		150 - 328 VAC without switching to battery operation	150 - 328 VAC without switching to battery operation	150 - 328 VAC without switching to battery operation
Input Current	2.7 A		4.5 A	8.0 A	12 A
Nominal Voltage Output	230 / 24 VAC		230 VAC		
Output Voltage Regulation	+ / - 10% over full input voltage range				
Typical Output Voltage (THDi)	< 3 %				
Battery String Voltage	24 VDC		24 VDC	48 VDC	48 VDC
Frequency	50 / 60 Hz (Output frequency = Input frequency)				
Typical Efficiency (normal mode)	> 96 %		> 98 %		
Waveform	pure sinus wave				
Max. Charge Current (adjustable)	6 A		3, 6, 10 A	3, 6, 10 und 11 bis 15 A*	
Connections	dry contacts, RS232, RJ45				
SNMP Interface	YES				
* Note: charge current > 10 A will affect output power capacity (i.e. 1625W maximal load for Atrax 44 / 55 – 2000 at 15 A charge current)					
Dimensions & Properties					
Dimensions mm (HxWxD)	Pole / Wall (S): 724 x 685 x 501 Ground (G): 689 x 685 x 460				
Weight S/G kg (without batteries)	48 / 43		49 / 44	54 / 49	56 / 51
IP Class	IP44 or IP55 (selectable)				
Vandal Resistance Rate (1-10)	IK10				
Batteries (selectable)	up to 4 x 12V / 55 Ah batteries inside cabinet				
Keylock	yes				
Mounting	Pole-/ Wall Mounting Kit (S) or Ground Mounting Kit (G) included				
Standard Functions					
Automatic Voltage Regulation (AVR) & Automatic frequency sensing (50 Hz / 60 Hz)					
RS-232 serial port & internal SNMP Interface					
Active ventilation system (IP55 System)					
Emergency Power Off (E.P.O.) input					
Variable internal speed fan (power module) with fan failure alarm					
Circuit breaker protection on the input and external battery disconnect					
Generator-ready for extended runtime option					
Three user inputs: self test, alarm, shutdown					

TALIOR MADE

UPS Model of your choice



Battery Model of your choice



Cabinet of your choice



[Helios FXM HP Series \(up to 2kW\) >>](#)

[Helios TC Series \(up to 3kW\) >>](#)

[Helios Outdoor Series \(2000VA\) >>](#)

<<PRODUCT RANGE

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HELIOS FXM HP SERIES



The FXM HP continues the longstanding excellence in Battery Backup Systems by ensuring that equipment in critical applications remains protected from power disturbances and outages. The FXM HP brings a refreshed look, increased processor power, advanced security and configurability to the proven FXM outdoor family. Colored LCD touchscreen display provides access to multiple configurable tabs for quick system status, overview and configuration without the need of a laptop.



MAIN FEATURES

Input: 153 to 322Vac

Battery DC: 24 or 48Vdc

Output: 210/220/230V/240Vac

Power: 650W, 1100W and 2000W

- High operating & ambient temperature range - 40 °C to + 74 °C
- Wide input voltage range and automatic voltage regulation (AVR) without switching to battery operation
- Advanced next-generation control and monitoring platform with high resolution color touchscreen LCD display
- Built-in data loggers to monitor performance logs, user configurable alarms and advanced equation editing for custom data and actions
- Integrated USB host for local firmware upgrades, configuration updates, backup, restoration and cloning

WHY HELIOS FXM HP SERIES?

- Wide range of input voltage
- UPS suitable for integration
- 24 or 48Vdc battery option
- Suitable to charge up to 150Ah battery
- Variability on communication ports; (Dry contacts, 2 x RJ45, 1 x USB-A, 1 x USB mini, 1 x RJ11, 1 x RJ12)
- SNMP communication option
- High Temp (-40°C to +74°C) (4°C higher than the equivalent units.

FXM HP SERIES

650, 1100, 2000VA

Specifications Table

Technical Data				
Model	FXM 650		FXM 1100	FXM 2000
Input				
Input voltage range	153 - 322 VAC			
Input current	4,4 A	8 A	12 A	
Frequency Tolerance in Line Mode	± 5 %			
Input Breaker Rating	5.5 A	10 A	15 A	
Frequency	50 Hz or 60 Hz			
Output				
Nominal output voltage	210 / 220 / 230 / 240 VAC			
Voltage regulation	Line Mode: ± 10 %, Inverter Mode: ± 2 %			
Rated Power	650 VA	1000 VA	2000 VA	
Frequency	50 Hz or 60 Hz			
Battery				
Battery string voltage	24 VDC	48 VDC		
Max. battery charging current	10 A	15 A		
Battery Breaker Rating	80 A	50 A	80 A	
Performance				
Load Crest Factor	3 : 1			
Typical output voltage (THDi)	< 3 %	< 3,5 %	< 5 %	
Efficiency Line Mode	> 98 % (Inverter Mode: >75%)	> 97 % (Inverter Mode: > 85%)		
Waveform	pure sinus wave			
Typical transfer time	< 5 ms			
Dimensions and Features				
Dimensions (mm)	89 H x 432 W x 229 D		133 H x 394 W x 222 D	
Weight (w/o Batteries)	11,3 kg	14 kg	18 kg	
Audible noise @ 1m	< 45 dBA			
Operating Temperature Range	-40 to 74 °C			
Full Load Operating Temperature Range	-40 to 55 °C (Derates 1.4% per °C past listed temperature range until a maximum of 74 °C, Refer to manual for nonlisted voltage settings)			
Humidity	up to 95% (non condensing)			
Altitude	up to 3700m (derates 2°C per 300m above 1400m)			
BTU/Hr (Inverter Mode)	845	675	1185	
Connectors (Input / Output)	hard wired			
Communication Ports	Dry contacts, 2 x RJ45, 1 x USB-A, 1 x USB mini, 1 x RJ11, 1 x RJ12			
SNMP interface card	Standard via RJ45 Ethernet			
Mounting	Shelf, rack or wall; horizontal or vertical mount			
Cooling	Forced air (fan cooled) with optional external fan cooling for enclosure			
Display	Full graphic LCD, 480x272 pixels, Resistive touch screen			
Indicators	Solid Green: Line Mode, Flashing Green: Inverter mode, Yellow/Amber: Minor alarms, Red: Major/Critical alarms			
Agency Compliance				
Electrical Safety	UL 1778, 60950-1, CAN/CSA-C22.2 No. 107.3-14			
Marks	CE, CSA			
RoHS	Yes			
EMC	FCC CFR47 Part 15, Class A, CSPR22, EN55022 Level A			

HELIOS TC SERIES



TC Series of line-interactive uninterruptible power supplies which was designed to operate in extreme temperature environment and to be installed in outdoor cabinets.

APPLICATIONS

- Outdoor base stations
- 5G Base Stations backup power
- Environmental monitoring stations
- Traffic signal centers
- Outdoor observation centers

MAIN FEATURES

Input: 88 to 150Vac (120VAC)

Input: 165 to 300Vac (220VAC)

Battery DC: 48Vdc

Output: 120 or 220/230V/240Vac

Power: 650W, 1100W, 2000W, 3000W

- Rack mounting design
- 120VAC or 230VAC Pure Sine Wave output voltage
- Remote on/off control
- Six Fully Programmable Dr Contacts
- Adjustable output voltage 220V, 230V, 240Vac
- Local and remote monitoring and control via RS232 port and Ethernet SNMP interface / Modbus on TCP-IP option
- Build in AVR Function



WHY HELIOS TC SERIES?

- UPS suitable for integration
- Generator Mode Compatibility
- High Temp (-40°C to +74°C)
(4°C higher than the equivalent units.
- Compliant to Transportation Electrical Equipment Specification (TEES)
- 30A Charger to enable up to 300Ah battery option.

<<PRODUCT RANGE

HELIOS
POWER SOLUTIONS

TC-650 Industrial AC UPS 650VA/650W

UPS		
Model		TC-650
Output Power (VA)		650 VA
Output Power (Watts)		650 W
INPUT		
Voltage		120 Vac ±25% - 220 / 230 / 240Vac ±25%
Frequency		120Vac 60Hz - 220 / 230 / 240Vac 50/60Hz
OUTPUT		
Waveform		Pure Sine Wave
Voltage		120Vac or 220 / 230 / 240Vac
Frequency		50 / 60 Hz ± 0.5 Hz
Transfer Time	Normal Mode (Max)	12 ms
	Generator Mode (Max)	25 ms
AC Input & Output Connectors		Terminal block, Anderson PP45 quick connector, IEC socket
PROTECTION		
Full Protection		Overload, Breaker
MANAGEMENT & COMMUNICATION		
Communication Port		RS232, USB(B-Type), SNMPCard(Optional)
BATTERY		
String Voltage		24/48 VDC
Type		Lead-acid battery
Max Charge Current		10A
INDICATORS		
LCD Display		4 line multi-function LCD
LED Display		Output status, alarm, fault LED
ENVIRONMENT		
Operating Temperature		-37 ~ 74°C
Operating Humidity		0 ~ 95 % RH (Non-condensing)
Audible Noise		Less than 60dB
PHYSICALY		
Dimensions (WxDxH)(mm)		432 x 254 x 88.6
Weight (kgs)		13

TC-1100 Industrial AC UPS 1100VA/1100W

UPS		
Model		TC-1100
Capacity (VA)		1100 VA
Capacity (Watts)		1100 W
INPUT		
Voltage		120 Vac $\pm 25\%$ - 220 / 230 / 240Vac $\pm 25\%$
Frequency		120Vac 60Hz - 220 / 230 / 240Vac 50/60Hz
OUTPUT		
Waveform		Pure Sine Wave
Voltage		120Vac or 220 / 230 / 240Vac
Frequency		50 / 60 Hz ± 0.5 Hz
Transfer Time	Normal Mode (Max)	12 ms
	Generator Mode (Max)	25 ms
AC Input & Output Connectors		Terminal block, Anderson PP45 quick connector, IEC socket
PROTECTION		
Full Protection		Overload, Breaker
MANAGEMENT & COMMUNICATION		
Communication Port		RS232, USB(B-Type), SNMP Card(Optional)
BATTERY		
String Voltage		24/48 VDC
Type		Lead-acid battery
Max Charge Current		10A
INDICATORS		
LCD Display		4 line multi-function LCD
LED Display		Output status, alarm, fault LED
ENVIRONMENT		
Operating Temperature		-37 ~ 74°C
Operating Humidity		0 ~ 95 % RH (Non-condensing)
Audible Noise		Less than 60dB
PHYSICALY		
Dimensions (WxDxH)(mm)		432 x 254 x 88.6
Weight (kgs)		13

TC-2000 Industrial AC UPS 2000VA/2000W

UPS		
Model		TC-2000
Output Power (VA)		2000 VA
Output Power (Watts)		2000 W
INPUT		
Voltage		120 Vac ±25% - 220 / 230 / 240Vac ±25%
Frequency		120Vac 60Hz - 220 / 230 / 240Vac 50/60Hz
OUTPUT		
Waveform		Pure Sine Wave
Voltage		120Vac or 220 / 230 / 240Vac
Frequency		50 / 60 Hz ± 0.5 Hz
Transfer Time	Normal Mode (Max)	12 ms
	Generator Mode (Max)	25 ms
AC Input & Output Connectors		Terminal block, Anderson PP45 quick connector, IEC socket
PROTECTION		
Full Protection		Overload, Breaker
MANAGEMENT & COMMUNICATION		
Communication Port		RS232, USB(B-Type), SNMP Card(Optional)
BATTERY		
String Voltage		48 VDC
Type		Lead-acid battery
Max Charge Current		10A
INDICATORS		
LCD Display		4 line multi-function LCD
LED Display		Output status, alarm, fault LED
ENVIRONMENT		
Operating Temperature		-37 ~ 74°C
Operating Humidity		0 ~ 95 % RH (Non-condensing)
Audible Noise		Less than 60dB
PHYSICALY		
Dimensions (WxDxH)(mm)		432 x 254 x 133
Weight (kgs)		21

TC-3000 Industrial AC UPS 3000VA/3000W

UPS		
Model		TC-3000
Output Power (VA)		3000 VA
Output Power (Watts)		3000 W
INPUT		
Voltage		220 / 230 / 240Vac ±25%
Frequency		220 / 230 / 240Vac 50/60Hz
OUTPUT		
Waveform		Pure Sine Wave
Voltage		220 / 230 / 240 Vac
Frequency		50 / 60 Hz ± 0.5 Hz
Transfer Time	Normal Mode (Max)	12 ms
	Generator Mode (Max)	25 ms
AC Input & Output Connectors		Terminal block, Anderson PP45 quick connector, IEC socket
PROTECTION		
Full Protection		Overload, Breaker
MANAGEMENT & COMMUNICATION		
Communication Port		RS232, USB(B-Type), SNMP Card(Optional)
BATTERY		
String Voltage		48 VDC
Type		Lead-acid battery
Max Charge Current		10A, (30A Option)
INDICATORS		
LCD Display		4 line multi-function LCD
LED Display		Output status, alarm, fault LED
ENVIRONMENT		
Operating Temperature		-37 ~ 74°C
Operating Humidity		0 ~ 95 % RH (Non-condensing)
Audible Noise		Less than 60dB
PHYSICALY		
Dimensions (WxDxH)(mm)		432 x 460 x 133
Weight (kgs)		34

HELIOS OUTDOOR SERIES –2000VA UPS



MAIN FEATURES

Input: 88 to 150Vac (120VAC)

Input: 165 to 300Vac (230VAC)

Battery DC: 48Vdc

Output: 120 or 230V/240Vac

Power: 1600W

- Very High operating & ambient temperature range - 40 °C to + 80 °C
- Wide input voltage range and automatic voltage regulation (AVR) without switching to battery operation
- Selectable transfer time for normal or generator modes.
- Circuit Breaker protection on AC Input, AC Output and External Battery
- Programmable Dry Contacts



WHY HELIOS OUTDOOR SERIES?

- Wide range of input voltage for American and European voltage standards
- UPS suitable for integration
- Adjustable parameters of dry contacts, input voltage range, battery charge current.
- Suitable to charge up to 100Ah battery
- Adjustable charge current prolongs battery lifetime.
- SNMP communication option
- Very High Operation Temp (-40°C to +80°C) (10°C higher than the equivalent units.

HELIOS OUTDOOR

SERIES 2000VA

Specifications Table

MODEL		Outdoor 2000A	Outdoor 2000E
Rated power		2000VA / 1600W	
INPUT			
Nominal voltage		120VAC	230/240VAC
Acceptable voltage range		88 ~ 152VAC user programmable. Default: 100 ~ 130VAC	176 ~ 300VAC user programmable. Default: 200 ~ 260VAC
Frequency range		50/60Hz (auto sensing)	
OUTPUT			
Nominal voltage		120VAC	230/240VAC
Voltage regulation (batt. mode)		120VAC ± 5%	230/240VAC ± 5%
Output frequency		50/60Hz ± 0.1%	
THD (batt. mode)		< 3% @ Full resistive load	
Efficiency	AC mode	95%	
	AVR mode	90%	
	Battery mode	90%	
Transfer time	Normal mode (max.)	12ms	
	Generator mode (max.)	12ms	
Waveform		Pure sinewave	
BATTERY			
Nominal DC voltage		48VDC	
Low DC warning voltage		46VDC ±0.4VDC @ no load	
Battery type		AGM	
Charging current		2A/4A/6A/8A/10A (adjustable)	
INDICATORS			
Bypass mode		Green LED on	
Battery mode		Green LED flashing	
No output		Green LED off	
Warning with output		Yellow LED on	
Fault without output		Red LED on	
MANAGEMENT			
Communication		RS/232/USB and optional SNMP	
Dry contact rating		3A @ 125VAC	3A @ 250VAC
PHYSICAL			
Dimension (HxWxD) (mm)		133x400x240	
Net weight (kgs)		13	
Type of mechanical protection		IP20	
ENVIRONMENT			
Humidity		5% to 95% Relative humidity (non-condensing)	
Operating temperature		-40°C to 80°C	-40°C to 70°C
Noise level		<48dB	
COMPLIANCE			
EMI compliance		Class A FCC/CISPR (EN50091-2:1995)	
Surge protection		IEEE/ANSI C.62.41 & 2kV, L-N	