

# MERCURY SPIRIT INVERTER

## AVAILABLE RANGE

2KW/2KVA-24VDC,  
2KW/2KVA-24VDC+40A MPPT SCC,  
3KW/3KVA-24VDC,  
3KW/3KVA-24VDC+40A MPPT SCC,  
5KW/5KVA-48VDC,  
5KW/5KVA-48VDC+80A MPPT SCC



## KEY FEATURES

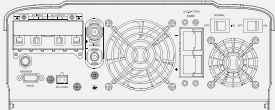
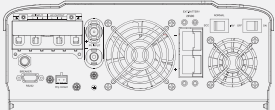

- High-frequency switching technology for compact size and light weight
- Pure sine wave output for wide range of applications and harsh environment
- Built-in solar charger controller with MPPT technology to optimize the power utilization
- High efficient DC to AC conversion minimizing energy loss
- Standby charging mode enables battery charging even when the unit is switched off
- Intelligent cooling fan control
- Input/output isolated design for the maximum operation safety
- LCD displays comprehensive operation status
- Configurable AC input voltage range and priority for AC input or PV input
- Support home appliances/Office Equipment/Motor based equipment such as fan, air conditioner, washing machines
- Thorough protections: Input low voltage / Overload / Short circuit / Low battery alarm / Input over voltage / Over temperature
- Supports both rack and wall-mounting set-up for flexible installation

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## LINE MODE SPECIFICATONS

Model	2000 Spirit 2K	2001 Spirit Plus 2K	3000 Spirit 3K	3001 Spirit Plus 3K	5000 Spirit 5K	5001 Spirit Plus 5K
Rating	2KW/2KVA-24VDC	2KW/2KVA-24VDC +40A MPPT SCC	3KW/3KVA-24VDC	3KW/3KVA-24VDC +40A MPPT SCC	5KW/5KVA-48VDC	5KW/5KVA-48VDC +80A MPPT SCC
<b>Input</b>						
Input Voltage Waveform	Sinusoidal (Utility or generator)					
Nominal Input Voltage	230 Vac					
Low Loss Voltage	170Vac±7V (UPS) 90Vac±7V (Appliances)			170Vac±7V (UPS) 125Vac±7V (Appliances)		
Low Loss Return Voltage	180Vac±7V (UPS) 100Vac±7V (Appliances)			185Vac±7V (UPS) 135Vac±7V (Appliances)		
High Loss Voltage	280Vac±7V					
High Loss Return Voltage	270Vac±7V					
Max AC Input Voltage	300Vac					
Nominal Input Frequency	50Hz / 60Hz (Auto detection)					
Low Loss Frequency	40Hz±1Hz					
Low Loss Return Frequency	42Hz±1Hz					
High Loss Frequency	65Hz±1Hz					
High Loss Return Frequency	63Hz±1Hz					
<b>Output</b>						
Output Short Circuit Protection	Breaker					
High Loss Frequency	<95% (Rated R load, battery full charged)					
High Loss Return Frequency	10ms typical (UPS) / 20ms typical (Appliances)					

## INVERTER MODE SPECIFICATONS

Model	2000 Spirit 2K	2001 Spirit Plus 2K	3000 Spirit 3K	3001 Spirit Plus 3K	5000 Spirit 5K	5001 Spirit Plus 5K
Rated Output Power	2KW/2KVA		3KW/3KVA-24VDC		5KW/5KVA	
<b>Input</b>						
Cold Start Voltage	23.0Vdc				46.0 Vdc	
Low DC Warning Voltage	22.0Vdc @ load < 20% / 21.4Vdc @ load > 20%				46.0Vdc @ load < 20% / 44.0Vdc @ load > 20%	
Low DC Warning Return Voltage	23.0Vdc @ load < 20% / 22.4Vdc @ load > 20%				47.0Vdc @ load < 20% / 46.0Vdc @ load > 20%	
Low DC Cut-off Voltage	21.0Vdc @ load < 20% / 20.0Vdc @ load > 20%				42.0Vdc @ load < 20% / 40.0Vdc @ load > 20%	
High DC Recovery Voltage	31.0 Vdc				54.0 Vdc	
High DC Cut-off Voltage	32.0 Vdc				60.0 Vdc	
THDV	<3% for linear load, <5% for non- linear load @ nominal voltage					
DC Offset	<100mV					
<b>Output</b>						
Output Voltage Waveform	Pure Sine Wave					
Output Voltage Regulation	230Vac±5%					
Output Frequency	50Hz					
Peak Efficiency	93%					
Overload Protection	5s@150% load; 10s@110%~150% load					
Surge Capacity	2 x rated power for 5 seconds					
Norminal DC Input Voltage	32.0 Vdc				60.0 Vdc	
Real Panel						

\*Specifications subject to change without piror notice.