

SPECIFICATIONS

Table 1 Line Mode Specifications

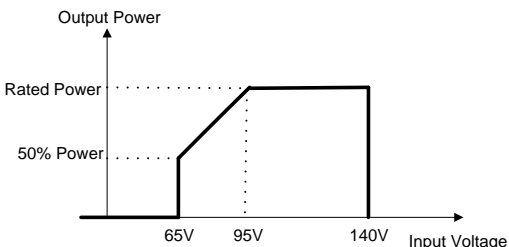
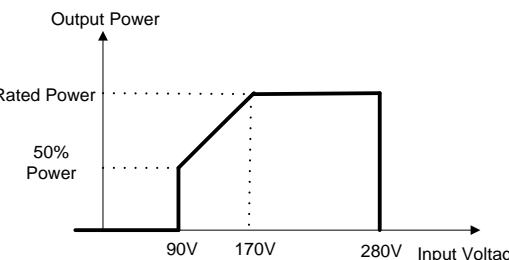
INVERTER MODEL	1KVA 24V 2KVA 24V 3KVA 24V 1KVA 48V 3KVA 48V	2KVA 24V Plus 3KVA 24V Plus 2KVA 48V Plus 3KVA 48V Plus	4KVA 5KVA
Input Voltage Waveform	Sinusoidal (utility or generator)		
Nominal Input Voltage	120Vac or 230Vac		
Low Loss Voltage	95Vac±7V or 170Vac±7V (UPS) 65Vac±7V or 90Vac±7V (Appliances)		
Low Loss Return Voltage	100Vac±7V or 180Vac±7V (UPS); 70Vac±7V or 100Vac±7V (Appliances)		
High Loss Voltage	140Vac±7V or 280Vac±7V		
High Loss Return Voltage	135Vac±7V or 270Vac±7V		
Max AC Input Voltage	150Vac or 300Vac		
Nominal Input Frequency	50Hz / 60Hz (Auto detection)		
Low Loss Frequency	40±1Hz		
Low Loss Return Frequency	42±1Hz		
High Loss Frequency	65±1Hz		
High Loss Return Frequency	63±1Hz		
Output Short Circuit Protection	Line mode: Circuit Breaker Battery mode: Electronic Circuits		
Efficiency (Line Mode)	>95% (Rated R load, battery full charged)		
Transfer Time	10ms typical (UPS); 20ms typical (Appliances)		
<p>Output power derating: When AC input voltage drops to 95V or 170V depending on models, the output power will be derated.</p>	<p>120Vac model:</p>  <p>230Vac model:</p> 		

Table 2 Inverter Mode Specifications

INVERTER MODEL	1KVA 24V 2KVA 24V 3KVA 24V 2KVA 24V Plus 3KVA 24V Plus	1KVA 48V 3KVA 48V 2KVA 48V Plus 3KVA 48V Plus	4KVA 5KVA
Rated Output Power	1KVA/0.8KW 2KVA/1.6KW 3KVA/2.4KW	1KVA/1KW 2KVA/1.6KW 3KVA/2.4KW	4KVA/3.2KW 5KVA/4KW
Output Voltage Waveform	Pure Sine Wave		
Output Voltage Regulation	110/120VAC±5% or 230Vac±5%		
Output Frequency	60Hz or 50Hz		
Peak Efficiency	90%		
Overload Protection	5s@≥150% load; 10s@110%~150% load		
Surge Capacity	2* rated power for 5 seconds		
Nominal DC Input Voltage	24Vdc	48Vdc	
Cold Start Voltage	23.0Vdc	46.0Vdc	
Low DC Warning Voltage @ load < 20% @ 20% ≤ load < 50% @ load ≥ 50%	22.0Vdc 21.4Vdc 20.2Vdc	44.0Vdc 42.8Vdc 40.4Vdc	
Low DC Warning Return Voltage @ load < 20% @ 20% ≤ load < 50% @ load ≥ 50%	23.0Vdc 22.4Vdc 21.2Vdc	46.0Vdc 44.8Vdc 42.4Vdc	
Low DC Cut-off Voltage @ load < 20% @ 20% ≤ load < 50% @ load ≥ 50%	21.0Vdc 20.4Vdc 19.2Vdc	42.0Vdc 40.8Vdc 38.4Vdc	
High DC Recovery Voltage	29Vdc	58Vdc	
High DC Cut-off Voltage	31Vdc	62Vdc	
No Load Power Consumption	<25W		<50W
Saving Mode Power Consumption	<10W		<15W

Table 3 Charge Mode Specifications

Utility Charging Mode					
INVERTER MODEL	1KVA 24V 2KVA 24V Plus 120Vac	2KVA 24V 3KVA 24V 2KVA 24V Plus 3KVA 24V Plus	2KVA 48V Plus 120Vac	1KVA 48V 3KVA 48V 2KVA 48V Plus 3KVA 48V Plus	4KVA 5KVA
Charging Current (UPS) @ Nominal Input Voltage	10/20A	20/30A	5/10A	10/15A	2/10A 20/30A
Bulk Charging Voltage	Flooded Battery	29.2		58.4	
	AGM / Gel Battery	28.2		56.4	
Floating Charging Voltage	27Vdc		54Vdc		
Charging Algorithm	3-Step				
Charging Curve	<p>The graph plots Battery Voltage (per cell) on the left y-axis and Charging Current (%) on the right y-axis against Time on the x-axis. The voltage curve (black) rises linearly in the Bulk phase, plateaus in the Absorption phase, and then slightly drops in the Maintenance phase. The current curve (red) is constant in the Bulk phase, then decays exponentially in the Absorption phase, and remains low in the Maintenance phase. Key voltage levels are 2.43Vdc (2.35Vdc) and 2.25Vdc. Time intervals T0 and T1 are indicated, with T1 = 10 * T0, minimum 10mins, maximum 8hrs.</p>				

Solar Charging Mode				
INVERTER MODEL	1KVA 24V 2KVA 24V 3KVA 24V	1KVA 48V 3KVA 48V	2KVA 24V Plus 3KVA 24V Plus	2KVA 48V Plus 3KVA 48V Plus 4KVA 5KVA
Rated Power	600W	900W	1500W	3000W
Efficiency	98.0% max.			
Max. PV Array Open Circuit Voltage	75Vdc max	102Vdc max	145Vdc	
PV Array MPPT Voltage Range	30~66Vdc	60~88Vdc	30~115Vdc	60~115Vdc
Min battery voltage for PV charge	17Vdc	34Vdc	17Vdc	34Vdc
Standby Power Consumption	2W			
Battery Voltage Accuracy	+/-0.3%			
PV Voltage Accuracy	+/-2V			
Charging Algorithm	3-Step			

Table 4 General Specifications

INVERTER MODEL	1KVA 24V 1KVA 48V	2KVA 24V	3KVA 24V 3KVA 48V	2KVA 24V Plus 3KVA 24V Plus 2KVA 48V Plus 3KVA 48V Plus	4KVA	5KVA
Safety Certification	CE					
Operating Temperature Range	0°C to 55°C					
Storage temperature	-15°C~ 60°C					
Dimension (D*W*H), mm	128 x 272 x 355			140 x 295 x 479	140 x295 x540	
Net Weight, kg	7.4	7.6	8.0	11.5	12.5	13.5