



Model Numbers

STR3-BM3000-24

STR3-BM5000-48

Inverter add-ons



Parallel connection kits

KMS-PARKITT-48

KMS-PARKIT-24

parallel kit is suitable for linking identical Strahl inverters in series or parallel.

Wi-Fi monitoring kit

IC-WIFI

Wi-Fi remote monitoring kit uses Wi-Fi connectivity to enable advanced remote monitoring of a Strahl hybrid inverter from any location in the world.

Wi-Fi mobile app module

IC-WIFI-2

Wi-Fi remote monitoring module uses Wi-Fi connectivity to enable advanced remote monitoring of an Strahl hybrid inverter from an Android or iOS mobile device.

RS-485 modbus card

IC-MODBUS

Modbus card enables communication between compatible Strahl inverters and the energy meter in a grid-tie system.

SPECIFICATIONS

Table 1 Line Mode Specifications

INVERTER MODEL	1.5KW	3KW	5KW
Input Voltage Waveform	Sinusoidal (utility or generator)		
Nominal Input Voltage	230Vac		
Low Loss Voltage	170Vac±7V (UPS); 90Vac±7V (Appliances)		
Low Loss Return Voltage	180Vac±7V (UPS); 100Vac±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	40±1Hz		
Low Loss Return Frequency	42±1Hz		
High Loss Frequency	65±1Hz		
High Loss Return Frequency	63±1Hz		
Output Short Circuit Protection	Circuit Breaker		
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 170V, the output power will be derated.</p>	<p>The graph plots Output Power against Input Voltage. The x-axis has markers at 90V, 170V, and 280V. The y-axis has markers for 50% Power and Rated Power. The power is zero for input voltages below 90V. At 90V, the power is 50% of the rated power. From 90V to 170V, the power increases linearly to reach the Rated Power. From 170V to 280V, the power remains constant at the Rated Power level. Above 280V, the power drops to zero.</p>		

Table 2 Inverter Mode Specifications

INVERTER MODEL	1.5KW	3KW	5KW
Rated Output Power	1.5KVA/1.5KW	3KVA/3KW	5KVA/5KW
Output Voltage Waveform	Pure Sine Wave		
Output Voltage Regulation	230Vac±5%		
Output Frequency	50Hz		
Peak Efficiency	93%		
Overload Protection	5s@≥130% load; 10s@105%~130% 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 < 50% @ load ≥ 50%	23.0Vdc 22.0Vdc		46.0Vdc 44.0Vdc
Low DC Warning Return Voltage @ load < 50% @ load ≥ 50%	23.5Vdc 23.0Vdc		47.0Vdc 46.0Vdc
Low DC Cut-off Voltage @ load < 50% @ load ≥ 50%	21.5Vdc 21.0Vdc		43.0Vdc 42.0Vdc
High DC Recovery Voltage	32Vdc		62Vdc
High DC Cut-off Voltage	33Vdc		63Vdc
No Load Power Consumption	<35W		<50W

Table 3 Charge Mode Specifications

Utility Charging Mode			
INVERTER MODEL	1.5KW	3KW	5KW
Charging Algorithm	3-Step		
AC Charging Current (Max)	40Amp (@V _{I/P} =230Vac)	60Amp (@V _{I/P} =230Vac)	
Bulk Charging Voltage	Flooded Battery	29.2	58.4
	AGM / Gel Battery	28.2	56.4
Floating Charging Voltage	27Vdc	54Vdc	
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, levels off in the Absorption phase, and then slightly drops in the Maintenance phase. The current curve (red) remains constant in the Bulk phase, then decays exponentially in the Absorption phase, and remains low in the Maintenance phase. Key voltage points are 2.43Vdc (2.35Vdc) and 2.25Vdc. Time intervals T0 and T1 are marked, with T1 = 10 * T0, minimum 10mins, maximum 8hrs.</p>		
MPPT Solar Charging Mode			
INVERTER MODEL	1.5KW	3KW	5KW
Max. PV Array Power	2000W	4000W	
Nominal PV Voltage	240Vdc		
Start-up Voltage	150Vdc +/- 10Vdc		
PV Array MPPT Voltage Range	120~380Vdc	120~450Vdc	
Max. PV Array Open Circuit Voltage	400Vdc	500Vdc	
Max Charging Current (AC charger plus solar charger)	60A	80Amp	

Table 4 General Specifications

INVERTER MODEL	1.5KW	3KW	5KW
Operating Temperature Range	-10°C to 50°C		
Storage temperature	-15°C~ 60°C		
Humidity	5% to 95% Relative Humidity (Non-condensing)		
Dimension (D*W*H), mm	100 x 280 x 390	115 x 300 x 440	
Net Weight, kg	8.5	9	10