

## Model Numbers

STR-BM1000-12, STR-BM2000-24

STR-BM3000-24 STR-BM3000-24P

STR-BP1000-12 STR-BP2000-24

STR-BP3000-24

### Inverter add-ons



<p>Parallel connection kits</p> <p>KMS-PARKITT-48</p> <p>KMS-PARKIT-24</p> <p>parallel kit is suitable for linking identical Strahl inverters in series or parallel.</p>	<p>Wi-Fi monitoring kit</p> <p>IC-WIFI</p> <p>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.</p>	<p>Wi-Fi mobile app module</p> <p>IC-WIFI-2</p> <p>Wi-Fi remote monitoring module uses Wi-Fi connectivity to enable advanced remote monitoring of a Strahl hybrid inverter from an Android or iOS mobile device.</p>	<p>RS-485 modbus card</p> <p>IC-MODBUS</p> <p>Modbus card enables communication between compatible Strahl inverters and the energy meter in a grid-tie system.</p>
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# SPECIFICATIONS

Table 1 Line Mode Specifications

INVERTER MODEL	1KVA	2KVA	3KVA	3KVA Plus	5KVA
<b>Input Voltage Waveform</b>	Sinusoidal (utility or generator)				
<b>Nominal Input Voltage</b>	230Vac				
<b>Low Loss Voltage</b>	170Vac±7V (UPS); 90Vac±7V (Appliances)				
<b>Low Loss Return Voltage</b>	180Vac±7V (UPS); 100Vac±7V (Appliances)				
<b>High Loss Voltage</b>	280Vac±7V				
<b>High Loss Return Voltage</b>	270Vac±7V				
<b>Max AC Input Voltage</b>	300Vac				
<b>Nominal Input Frequency</b>	50Hz / 60Hz (Auto detection)				
<b>Low Loss Frequency</b>	40±1Hz				
<b>Low Loss Return Frequency</b>	42±1Hz				
<b>High Loss Frequency</b>	65±1Hz				
<b>High Loss Return Frequency</b>	63±1Hz				
<b>Output Short Circuit Protection</b>	Circuit Breaker				
<b>Efficiency (Line Mode)</b>	>95% ( Rated R load, battery full charged )				
<b>Transfer Time</b>	10ms typical (UPS); 20ms typical (Appliances)				
<p><b>Output power derating:</b> When AC input voltage drops to 170V, the output power will be derated.</p>	<p>The graph illustrates the output power derating characteristics. The vertical axis represents Output Power, and the horizontal axis represents Input Voltage. Key points on the graph include:         <ul style="list-style-type: none"> <li>At 90V input, the output power is limited to 50% of the rated power.</li> <li>Between 90V and 170V, the output power increases linearly from 50% to 100% of the rated power.</li> <li>At 170V, the output power reaches the full rated power.</li> <li>From 170V to 280V, the output power remains constant at the rated level.</li> </ul> </p>				

Table 2 Inverter Mode Specifications

<b>INVERTER MODEL</b>	<b>1KVA</b>	<b>2KVA</b>	<b>3KVA</b>	<b>3KVA Plus</b>	<b>5KVA</b>
<b>Rated Output Power</b>	1KVA/1KW	2KVA/2KW	3KVA/3KW		5KVA/5KW
<b>Output Voltage Waveform</b>	Pure Sine Wave				
<b>Output Voltage Regulation</b>	230Vac±5%				
<b>Output Frequency</b>	50Hz				
<b>Peak Efficiency</b>	93%				
<b>Overload Protection</b>	5s@≥150% load; 10s@105%~150% load				
<b>Surge Capacity</b>	2* rated power for 5 seconds				
<b>Nominal DC Input Voltage</b>	12Vdc	24Vdc	24Vdc		48Vdc
<b>Cold Start Voltage</b>	11.5Vdc	23.0Vdc	23.0Vdc		46.0Vdc
<b>Low DC Warning Voltage</b>					
@ load < 50%	11.5Vdc	23.0Vdc	23.0Vdc		46.0Vdc
@ load ≥ 50%	11.0Vdc	22.0Vdc	22.0Vdc		44.0Vdc
<b>Low DC Warning Return Voltage</b>					
@ load < 50%	11.7Vdc	23.5Vdc	23.5Vdc		47.0Vdc
@ load ≥ 50%	11.5Vdc	23.0Vdc	23.0Vdc		46.0Vdc
<b>Low DC Cut-off Voltage</b>					
@ load < 50%	10.7Vdc	21.5Vdc	21.5Vdc		43.0Vdc
@ load ≥ 50%	10.5Vdc	21.0Vdc	21.0Vdc		42.0Vdc
<b>High DC Recovery Voltage</b>	15Vdc	30Vdc	32Vdc		62Vdc
<b>High DC Cut-off Voltage</b>	16Vdc	31Vdc	33Vdc		63Vdc
<b>No Load Power Consumption</b>	<25W				<55W

Table 3 Charge Mode Specifications

Utility Charging Mode						
INVERTER MODEL		1KVA	2KVA	3KVA	3KVA Plus	5KVA
Charging Algorithm		3-Step				
AC Charging Current (Max)		20Amp(@V <sub>I/P</sub> =230Vac)		25Amp (@V <sub>I/P</sub> =230Vac)		60Amp (@V <sub>I/P</sub> =230Vac)
Bulk Charging Voltage	Flooded Battery	14.6		29.2		58.4
	AGM / Gel Battery	14.1		28.2		56.4
Floating Charging Voltage		13.5Vdc		27Vdc		54Vdc
Charging Curve						
PWM Solar Charging Mode						
INVERTER MODEL		1KVA	2KVA	3KVA		5KVA
Charging Current		50Amp				
System DC Voltage		12Vdc		24Vdc		48Vdc
Operating Voltage Range		15~18Vdc		30~32Vdc		60~72vdc
Max. PV Array Open Circuit Voltage		55Vdc		80Vdc		105Vdc
DC Voltage Accuracy		+/-0.3%				
Max Charging Current (AC charger plus solar charger)		50Amp		70Amp		110Amp
MPPT Solar Charging Mode						
INVERTER MODEL		1KVA	2KVA	3KVA	3KVA Plus	5KVA
Charging Current			40Amp			60Amp
PV Array MPPT Voltage Range		15~80Vdc		30~80Vdc		30~115Vdc 60~115Vdc
Max. PV Array Open Circuit Voltage			102Vdc			145Vdc
Max Charging Current (AC charger plus solar charger)			60Amp			120Amp

Table 4 General Specifications

INVERTER MODEL	1KVA	2KVA	3KVA	3KVA Plus	5KVA
Safety Certification	CE				
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	88 x 225 x 320		100 x 285 x 334		100 x 300 x 440
Net Weight, kg (PWM model)	4.4	5	6.3	N/A	8.5
Net Weight, kg (MPPT model)	4.4	5	6.5	9.5	9.7

