

Model Numbers

STR-MX11000-48

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

MODEL	11KW
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
Max AC Input Current	70A
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 (70A) 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 de-rating: When AC input voltage under 170V the output power will be de-rated.</p>	<p>The graph illustrates the output power de-rating characteristics. The vertical axis represents Output Power, and the horizontal axis represents Input Voltage. Key voltage points are marked at 90V, 170V, and 280V. At 90V, the output power is limited to 50% of the rated power. Between 90V and 170V, the output power increases linearly from 50% to the full Rated Power. From 170V to 280V, the output power remains constant at the Rated Power level.</p>

Table 2 Inverter Mode Specifications

MODEL	11KW
Rated Output Power	11000W
Output Voltage Waveform	Pure Sine Wave
Output Voltage Regulation	230Vac±5%
Output Frequency	60Hz or 50Hz
Peak Efficiency	93%
Overload Protection	100ms@≥180% load;5s@≥120% load; 10s@105%~120% load
Surge Capacity	2* rated power for 5 seconds
Low DC Warning Voltage @ load < 20% @ 20% ≤ load < 50% @ load ≥ 50%	46.0Vdc 42.8Vdc 40.4Vdc
Low DC Warning Return Voltage @ load < 20% @ 20% ≤ load < 50% @ load ≥ 50%	48.0Vdc 44.8Vdc 42.4Vdc
Low DC Cut-off Voltage @ load < 20% @ 20% ≤ load < 50% @ load ≥ 50%	44.0Vdc 40.8Vdc 38.4Vdc
High DC Recovery Voltage	61Vdc
High DC Cut-off Voltage	63Vdc
DC Voltage Accuracy	+/-0.3V@ no load
THDV	<5% for linear load,<10% for non-linear load @ nominal voltage
DC Offset	≤100mV
Power Limitation When battery voltage is lower than 55Vdc, output power will be derated. If connected load is higher than this derated power, the AC output voltage will decrease until the output power reduces to this derated power. The minimum AC output voltage is 220V.	<p>The graph illustrates the power limitation of the inverter based on battery voltage. The vertical axis represents Output Load, and the horizontal axis represents Battery Voltage. The power is constant at a derated level (Rate Power * 0.725) for battery voltages below 42V. Between 42V and 55Vdc, the power increases linearly to the full Rate Power. Above 55Vdc, the power remains constant at the Rate Power level.</p>

Table 3 Charge Mode Specifications

Utility Charging Mode		
MODEL	11KW	
Charging Current (UPS) @ Nominal Input Voltage	150A	
Bulk Charging Voltage	Flooded Battery	58.4Vdc
	AGM / Gel Battery	56.4Vdc
Floating Charging Voltage	54Vdc	
Overcharge Protection	63Vdc	
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) starts at 2.25Vdc, rises linearly to 2.43Vdc (2.35Vdc) during the Bulk phase (T0), remains constant during the Absorption phase (T1), and then slightly drops to a floating voltage. The current curve (red) is constant at 100% during the Bulk phase, then decays during the Absorption phase, and reaches a low maintenance level during the Floating phase. T1 is specified as a minimum of 10 minutes and a maximum of 8 hours.</p>	
Solar Input		
MODEL	11KW	
Rated Power	11000W	
Max. PV Array Open Circuit Voltage	500Vdc	
PV Array MPPT Voltage Range	90Vdc~450Vdc	
Max. Input Current	18A x 2	
Max. Charging Current	150Amp	
Start-up Voltage	80V +/- 5Vdc	
Power Limitation	<p>The graph plots PV Current on the y-axis against MPPT temperature on the x-axis. The current is constant at 18A for temperatures up to 75°C. Between 75°C and 85°C, the current is limited to 9A. Above 85°C, the current is zero.</p>	

Table 4 General Specifications

MODEL	11KW
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	147.4x 432.5 x 553.6
Net Weight, kg	18.4

Table 5 Parallel Specifications

Max parallel numbers	6
Circulation Current under No Load Condition	Max 2A
Power Unbalance Ratio	<5% @ 100% Load
Parallel communication	CAN
Transfer time in parallel mode	Max 50ms
Parallel Kit	YES

Note: Parallel feature will be disabled when only PV power is available.