



Vehicle to Home

SVH3KW

User manual

SAVE THESE INSTRUCTIONS

This manual contains important instructions for V2H that shall be followed during installation, operation and maintenance of the unit.



WARNING ELECTRICAL

THIS EQUIPMENT SHOULD BE INSTALLED, ADJUSTED, AND SERVICED BY QUALIFIED ELECTRICAL PERSONNEL FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THIS TYPE OF EQUIPMENT AND THE HAZARDS INVOLVED. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN DEATH OR SEVERE INJURY.

READ THIS MANUAL THOROUGHLY PRIOR TO INSTALLATION AND ENERGIZING THE EQUIPMENT. INSPECTION AND MAINTENANCE OF THIS EQUIPMENT SHOULD BE PERFORMED IN ACCORDANCE WITH THE OPERATING PROCEDURES DETAILED IN THIS MANUAL.

THE PURPOSE OF THIS MANUAL IS TO PROVIDE YOU WITH INFORMATION NECESSARY TO SAFELY OPERATE, MAINTAIN, AND TROUBLESHOOT THIS EQUIPMENT. KEEP THIS MANUAL FOR FUTURE REFERENCE.

DO NOT USE THIS PRODUCT IF THE EV CABLE IS FRAYED, HAS DAMAGED INSULATION OR ANY OTHER SIGN OF DAMAGE.

DO NOT USE THIS PRODUCT IF THE ENCLOSURE OR THE EV CONNECTOR IS BROKEN, CRACKED, OPEN, OR SHOW ANY OTHER INDICATION OF DAMAGE.

INTENDED FOR USE WITH PLUG-IN ELECTRIC VEHICLES ONLY.

PREMISE VENTILATION NOT REQUIRED.

THE INFORMATION CONTAINED IN THIS MANUAL IS SUBJECT TO CHANGE WITHOUT NOTICE.

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1.System overview

1.1 Overview

“Vehicle to Home” is a system that allows you to supply your home with the energy stored in a Nissan LEAF’s battery.

By charging up a Nissan LEAF at night when there is more capacity for electrical supply and then using that electricity as the daytime power source for a household, the system helps alleviate consumption of power in peak periods when demand is highest. Further, it can also be leveraged as backup power supply for emergencies.

SVH3KW converts a CHAdeMO DC voltage into AC voltage to directly charge home appliance by an electric vehicle's lithium ion battery. In addition, the charger utilizes a CHAdeMO compliant communications protocol and power connector.



Figure 1. SVH3KW Appearance

1.2 Main parts

No	Name	Model	Instructions	Qty
1	Inverter	SVH3KW	Intelligent Control Center	1
2	AC output	socket		2
3	DC connector		Chademo	1

1.3 Specification

	Output power	3KW
DC Input	Rated input voltage	450V
	Rated input current	15A
	Anti-noise current irrigation	≤10%
AC Output	Rated capacity	3000VA
	Rated output power	3KW
	Rated output voltage and frequency	100-260Vac, 50/60Hz
	Wave shape	Pure sine wave
	Rated output current	15A
	Output voltage accuracy	220 V ±6%
	Output frequency accuracy	50/60Hz
	Waveform distortion	≤3%
	Dynamic Response Time	5%
	Power factor	0.8
	Overload	120%, 30s
Efficiency (80% Resistive load)	≥92%	
Work environment	Dielectric Strength	Input & output 1500Vac, 1min
	Noise (1m)	≤40dB
	Ambient temperature	-25℃~+50℃
	Humidity	0~90%, Non-condensing
	Altitude (m)	≤1000
	Cooling	Forced air
Protection	Input undervoltage, overvoltage; output overload, short circuit protection; AC input high and low voltage protection	
Output wiring	Terminal Blocks	
Net Weight	15KG	
Dimension	478.8 (W) ×375.5 (H) ×200 (D) mm	

1.4 Features

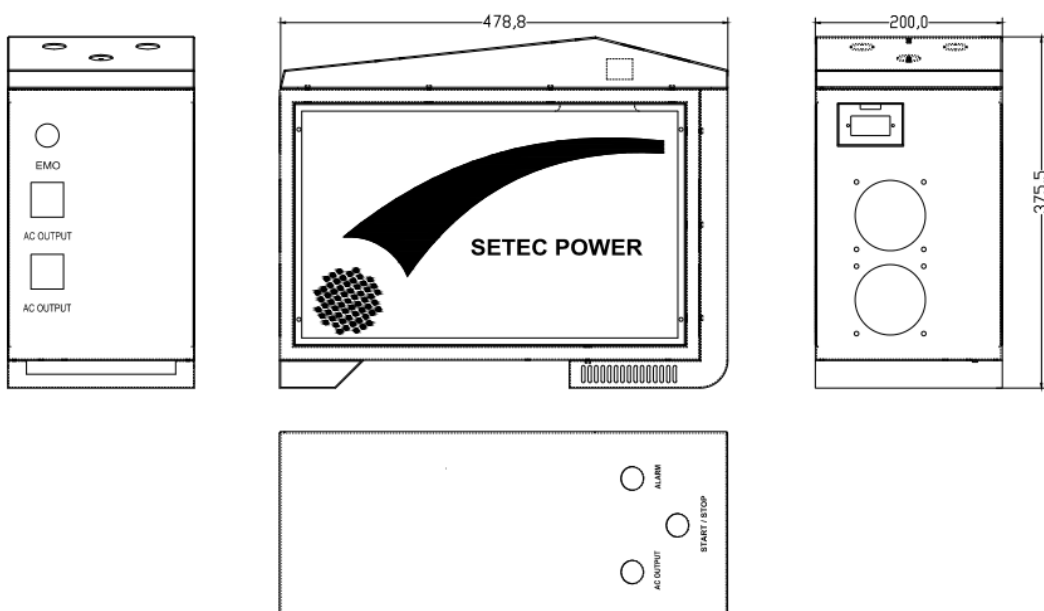
Household power can be supplied from a Nissan LEAF lithium-ion battery by installing a PCS (Power Control System) connected to the household's distribution board, while plugged into the Nissan LEAF DC quick charge port.

To use the electricity stored in the Nissan LEAF lithium-ion battery as household power it is necessary to convert the DC high-voltage electricity to AC 100-260V. The Nissan LEAF EV lithium-ion battery has large capacity and high reliability, meaning it can provide a stable power supply.

- EVs as power sources for living ;
- User-friendly operation.
- Safe and convenient
- Small size and easy to take
- Be leveraged as backup power supply for emergencies.
- Conversion efficiency: 92% or more

2. Operation

2.1 Mechanical Information



2.2 Charger Procedure

1. Pls brake to a halt and switch off the electric car first.
2. Connect the ev and V2H by CHAdeMO plug
3. Connect AC output line
4. Switch on the V2H

NOTE:

1. Don't connect AC output with grid power.
2. Don't switch on the electric car when V2H works.

Quality Assurance Card

To ensure good quality product, the V2H was thoroughly checked before leaving the factory. The manufacturer guarantees to the user that the converter is in good condition. The manufacturer provides 2-year warranty service from the date of purchase.

Please refer to the warranty statement.

User's Information

User Company: _____	Contact person: _____
Address: _____	Phone: _____
Dealer company: _____	Post code: _____
Model: _____	Serial number: _____
Purchase date: _____	Handling person: _____

Repair Record

Date	Record	Abstract	Technician	Signature

Note: Please fill in the above chart and mail a stamped immediately to the Marketing Department.

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