



Descriptive Report

MASTER CONTRACT: 0000304607

REPORT: 80234452

PROJECT: 80234452

EDITION

Edition	Issued On	Project	Location	Prepared By	Authorized By
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PRODUCTS

Class 2781 06 CAMPING EQUIPMENT (GAS) - Portable Water Heaters

Class 2781 86 CAMPING EQUIPMENT (GAS) - Portable Water Heaters - Certified to US Standards

Portable Water Heater

Yinuan

Model(s)	Electrical Rating	Max Input Rating (BTU/HR)	Min Input Rating (BTU/HR)
YN.JSZ6-SPIH03-LI-LV-NA, YN.JSZ6-SPIH03-NB-LV-NA, YN.JSZ6-SPIH03-LI-PV-NA, YN.JSZ8-SPIH04-LI-LV-NA, YN.JSZ8-SPIH04-NB-LV-NA, YN.JSZ8-SPIH04-LI-PV-NA, YN.JSZ6-SPTIH03-LI-LV-NA, YN.JSZ6-SPTIH03-NB-LV-NA, YN.JSZ6-SPTIH03-LI-PV-NA, YN.JSZ6-SPIH03LA-LI-LV-NA, YN.JSZ6-SPIH03LA-NB-LV-NA, YN.JSZ6-SPIH03LA-LI-PV-NA,	DC 12V	20000	8100

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YN.JSZ6-SPTIH03LA-LI-LV-NA, YN.JSZ6-SPTIH03LA-NB-LV- NA, YN.JSZ6-SPTIH03LA-LI-PV-NA			
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CONDITIONS OF ACCEPTABILITY

Not applicable.

APPLICABLE REQUIREMENTS

Standards Used	Description
CSA/ANSI Z21.96:19/CSA 11.6:19	Portable water heaters for outdoor use

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Markings are printed on the CSA/UL approved adhesive labels. Besides, the gas and water connection indicators are stamped on the shell. See Att1 Figure 3 for markings details.

NAMEPLATE ADHESIVE LABEL MATERIAL APPROVAL INFORMATION

Adhesive label shall be UL/CSA approval type.

Zhongshan BoYuan Printing Factory	Bylabel-pet (UL MH63346)	150°C
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ALTERATIONS**Project 80234452**

- The delayed ignition test failed due to the flame flashing out of the appliance. Therefore the ignition period was changed from 4s to 1.5s.

FACTORY TESTS

The submitter shall ensure that the following factory tests are conducted at the frequency specified and the results are documented and made available for review by CSA field services representatives:

<u>Test</u>	<u>Frequency</u>
<u>Test Fire Burner, Manifold & Control Assy. - Proper Operation</u> Pass/Fail Criteria: • Burners shall light smoothly and burn at all ports • No leakage in the manifold shall be observed	100%
<u>Manifold and Control Assembly – Gas Tightness</u> Pass/Fail Criteria: • No leakage in the manifold shall be observed	100%
<u>Component</u> a) test pressure regulating devices to determine compliance with Clause 4.8.5; b) test manual valves for continued operation to determine compliance with Clause 4.5.9; c) test nonmetallic internal parts of gas controls for compliance with Clause 4.2.8; d) test each control for leakage as specified in Clauses 4.5.7 (or Clause 4.5.10) and 4.8.3 (or Clause 4.8.6) using a sampling plan mutually acceptable to the manufacturer and certifying agency.	1 per batch or per month
<u>Burner Operating Characteristics</u> Pass/Fail Criteria: • The main burners shall light without delay. • Burners shall not flashback. • The burner flames shall carry across to all burners and burn at all ports. • Burner flames shall not flash outside the appliance jacket.	1 per 1000 or 1 per week (production run)
<u>Ignition Systems</u> Pass/Fail Criteria: • Verify that the main burners light without delay.	1 per 1000 or 1 per week (production run)

- Verify that upon loss of supervised flame, the ignition system will shut off the gas flow within 30 seconds.

Combustion

1 per 1000 or 1 per week (production run)

Pass/Fail Criteria:

- Carbon Monoxide shall not exceed 0.04% Air Free after 15 minutes of operation.

Gas valves and carrying handles

1 per 1000 or 1 per week (production run)

Pass/Fail Criteria:

- No rupture or visible permanent deformation observed.

SPECIAL INSTRUCTIONS FOR FIELD SERVICES

1. Component descriptions marked with either the "(INT)" or "(INT*)" identifiers may be substituted with other components providing the requirements specified under the notes in the "Description" are complied with.
2. Not applicable.

COMPONENT SPECIAL PICKUP

1. Component descriptions marked with the identifier "(CT)" are subject to annual pickup and Conformity Testing.
2. Not applicable.

DESCRIPTION

Notes:

1. Component Substitution

- a) Critical components (those identified by mfr name, cat no), which are NOT identified with either "INT" or "INT*" are not eligible for substitution without evaluation and report updating
- b) The term "INT" means a "Certified" and/or "Listed" (or a "Recognized" and/or "Accepted") component may be replaced by one "Certified" and/or "Listed" by another certification organization accredited by the appropriate accreditation body or scheme requirements to the correct standard, for the same application; providing the applicable country identifiers are included and requirements in item "d" below are complied with.
- c) The Term "(INT*)" means a "Recognized" and/or "Accepted" component may be replaced by a component that is CSA Certified. The applicable country identifiers shall be included, the requirements in item "d" below as well as any "conditions of suitability" for the component (as recorded in this descriptive report) shall be complied with;
- d) Components which have been substituted, must be of an equivalent rating, configuration (size, orientation, mounting) and the applicable minimum creepage and clearance distances are to be maintained from live parts to bonded metal parts and secondary parts.
- e) Substitution of a "Certified" and/or "Listed" component with a component that is "Recognized" or "Accepted" is not permitted without evaluation and report updating.
- f) Substitution of a "Recognized" and/or "Accepted" component by one that is not CSA Certified is not permitted without a proper evaluation as well as a report update because the Conditions of Acceptance of the original component may be different than the Conditions of Acceptance of the substitute component.

MODEL NUMBER BREAKDOWN**For all models:**

YN	Tradename YiNuan
JSZ6-SPIH03	Portable Water Heater with metallic lifting handle
JSZ8-SPIH04	Portable Water Heater with shoulder belt
JSZ6-SPTIH03	Portable Water Heater without handle
JSZ6-SPIH03LA	Portable Water Heater without handle but with lifting belt
LI	A function that when the device is shutdown by overheat, the device will keep water flowing for 120s to cool down the device
NB	Without the function of "LI"
LV	Button "pump": Short press to start the water flow, gas flow and ignition; long press to shift the temperature unit between °C and °F
PV	Button "pump": Short press to start the water flow, gas flow and ignition; long press to exclusively power supply to the socket on the front panel
NA	North America

CLEARANCES

For installation only on non-combustible floors

<u>Top</u>	<u>Side</u>	<u>Rear</u>
48"	12"	12"

VENTING

Air intake: Louvers on the bottom

Venting: Louvers on left and right panels.

GAS PRESSURE

Propane Gas supplied by a 1lb cylinder with CGA 600 connection.

Model No.	Min. Inlet Pressure	Max. Inlet Pressure	Manifold Pressure
All models	25psi	250psi	11”w.c.

ELECTRICAL RATING

DC 12V, less than 5A

*Supplied by rechargeable lithium battery, or RV 12V power, or a class 2 adapter(sold separately).

ORIFICE SIZE

Model no.	Orifice
All models	4@0.67mm

GAS CONTROL ASSEMBLIES

Read columns vertically for complete assemblies

<u>Type of Control</u>	<u>Mfr. Of Control</u>	<u>Model Number Approve Number</u>	<u>Electrical parameters</u>
ON/OFF Switch	Yueqing Daier Electron Co Ltd	KCD1-102-1 (UL E485345)	125V, 6A, 125°C
Fuse	DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD	521 (UL E300003)	250VAC, 100A
Fuse Box	Hinew Electric Co., Ltd	H3 (UL E239034)	250V AC/DC, 10A
Combination Control Valve	Zhongshan Huajie Intelligent Technological CO.,Ltd (Guangdong Yinuan Thermal Energy Equipment Co., Ltd)	BMV-230 (Application Project CSA 80199513)	3V DC -17.8°C to 60°C
Burner Control System	Guangdong Meizhi Intelligent Technology Co., Ltd.	MZ-RSQ04 B0-V03 20250210 (Application Project CSA 80199509)	12V DC -10°C to 60°C (Software: IC2 Version: V01 Checksum: 0x3DC8 Date: 20240825)
Direct Current Input	FOSHAN BOCHILL CABLE TECH CO LTD	1007 (UL E509056)	80°C, 300 Vac

Temperature Limit Control	Zhongshan Huilong Electrical Co. Ltd	KSD301 (UL E349305)	68℃
Electrode	YANGZHOU HUAMING TECHNOLOGY CO.,LTD LTD	H (CSA 70155816)	800℃
Pressure Relief Valve	YUHUAN HEAPE VALVE CO., LTD	HPSV04B (CSA 80088753)	205,000 BTU/hr 150 PSI
Marking Material	Zhongshan BoYuan Printing Factory	Bylabel-pet (UL MH63346)	150℃
Flow Sensor	YOUNG GAS APPLIANCES INDUSTRIAL CO.,LTD	BD-A08 (CSA 80170600)	/
Rechargeable Lithium-Ion Battery	Guangdong Yinuan Thermal Energy Equipment Co., Ltd	18650-2500mAh-11.1V 3S1P (CSA 80199519)	2500mAh-11.1V, 60℃
Tip-over Switch	GUANGDONG YUSHUN ELECTRIC APPLIANCE LTD	KW16B (UL E335523)	125V, 16A, 125℃
Internal Wire	VARIOUS	1007	22AWG, 80℃, 300V
	VARIOUS	1007	20AWG, 80℃, 300V
	VARIOUS	1007	20AWG, 80℃, 300V
	VARIOUS	2468	24AWG, 80℃, 300V
	VARIOUS	3122	20AWG, 200℃, 300V
Ground Wire	VARIOUS	1007	22AWG, 80℃, 300V

Ignition wire	VARIOUS	3239	20AWG, 150°C, 40kV
Wire quick connector	XIN HANG HARDWARE PLASTIC CO LTD	B187014 (UL E351169)	/
Insulators for quick-connect terminals	Foshan Fangpu Dipping Technology Co Ltd	Series FP (UL E185679)	/
LP Regulator	Guangdong GDA Valve Technology Co., Ltd.	GR-111E (CSA 1602833)	/

FIGURE NO.

DESCRIPTION

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Drawings of YN.JSZ6-SPIH03 series, YN.JSZ8-SPIH04 series

1

Drawings

Drawings of YN.JSZ6-SPTIH03 series, YN.JSZ6-SPIH03LA series, YN.JSZ6-SPTIH03LA series

2

Drawings (others are referred to figure 1)

Markings and Instruction Manual of YN.JSZ6-SPIH03 series, YN.JSZ8-SPIH04 series, YN.JSZ6-SPTIH03 series, YN.JSZ6-SPIH03LA series, YN.JSZ6-SPTIH03LA series

3

Markings EN&FR

4

Instruction Manual EN

5

Instruction Manual FR

TEST HISTORY

Project 80234452 (Ed. 1)

Original certification of Portable water heaters for outdoor use models YN.JSZ6-SPIH03-LI-LV-NA, YN.JSZ6-SPIH03-NB-LV-NA, YN.JSZ6-SPIH03-LI-PV-NA, YN.JSZ8-SPIH04-LI-LV-NA, YN.JSZ8-SPIH04-NB-LV-NA, YN.JSZ8-SPIH04-LI-PV-NA, YN.JSZ6-SPTIH03-LI-LV-NA, YN.JSZ6-SPTIH03-NB-LV-NA, YN.JSZ6-SPTIH03-LI-PV-NA, YN.JSZ6-SPIH03LA-LI-LV-NA, YN.JSZ6-SPIH03LA-NB-LV-NA, YN.JSZ6-SPIH03LA-LI-PV-NA, YN.JSZ6-SPTIH03LA-LI-LV-NA, YN.JSZ6-SPTIH03LA-NB-LV-NA, YN.JSZ6-SPTIH03LA-LI-PV-NA per standard CSA/ANSI Z21.96:19 • CSA 11.6:19.

These models are portable water heaters for outdoor use only, which can be powered by either a listed rechargeable Lithium-Ion battery, or a class 2 adapter (sold separately). They are connected to a 20lb LP cylinder with a hose assembly. See the model number breakdown for details of differences. All construction review and performance tests were conducted on model YN.JSZ6-SPIH03-NB-LV-NA due to that the differences do not affect the result. For shower use only.

The following tests were conducted based on standards (CSA/ANSI Z21.96:19/CSA 11.6:19)

W= Waived; P= Passed

Tests Location

China Guangzhou

Clause Number	Requirement	Comments	Verdict
Annex A (normative)	Items unique to the United States		
A	Items unique to the United States		P
5	Performance		
5	Performance		P
5.1	General		P
5.2	Test gases		P
5.3	Test pressures and burner adjustments		P
5.4	Combustion		P
5.5	Burner operating characteristics		P
5.6	Piloted and non-piloted ignition systems		P
5.7	Direct ignition systems		P
5.8	Temperature control		P
5.9	Stability		P
5.10	Temperature limiting devices		P
5.11	Gas valves and carrying handles		P
5.12	Evaluation of clothing ignition potential		P
5.13	Surface temperatures		P
5.14	Permanently attached marking tags		P
5.15	Wall, floor, and ceiling temperatures		P

Clause Number	Requirement	Comments	Verdict
5.16	Wind test		P
5.17	Safety circuit analysis		P
5.18	Hydrostatic test		P
5.19	Rain test		P
5.20	Marking material adhesion and legibility		P
6	Manufacturing and production tests		
6	Manufacturing and production tests		P

Construction Reviews were performed and satisfactory.

---End of Report---