SIEMENS

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Gefahrgutinformation / Dangerous Goods Information

Artikelnummer / Article number: ***6AG1134-0GB00-4AY0***

Bei dem Produkt handelt es sich um • 2 Batterien, nass, auslaufsicher, die bei Lieferung die Voraussetzungen der Sondervorschrift 238 a) und b) der "UN Recommendations on the Transport Of Dangerous Goods" erfüllen. Für eine weltweite Beförderung ist jede Batterie entsprechend CFR 49 § 173.159a mit „NONSPILLABLE" gekennzeichnet. Das Produkt ist daher bei Lieferung für die nachfolgend angeführten Gefahrgutvorschriften wie angegeben klassifiziert und ist entsprechend den anwendbaren nationalen und internationalen Gefahrgutvorschriften für die genutzten Verkehrsträger zu befördern. Bitte beachten Sie für weitere Beförderungen die fortlaufenden Änderungen der Gefahrgutvorschriften sowie ggf. Änderungen am Produkt nach Lieferung. Falls Angaben zu Notfallmaßnahmen erforderlich sind, finden sich diese im zutreffenden PSDS*.	The product is • 2 Batteries, wet, non-spillable meeting the preconditions of Special Provision 238 a) and b) of the "UN Recommendations on the Transport of Dangerous Goods" on delivery. For world-wide transport each single battery is marked with "NONSPILLABLE" according to CFR 49 § 173.159a. The product is therefore on delivery classified according to the dangerous goods regulations as mentioned below and has to be transported according to the applicable national and international dangerous goods regulations for the modes of transport used. Please consider for further transports the continuous changes of the dangerous goods regulations as well as applicable changes of the product after delivery. If emergency response information is necessary, it can be found in the applicable PSDS*.

*PSDS: Produktsicherheitsdatenblatt/Product Safety Data Sheet

ADR/RID/ADN:	UN 2800 Batterien, nass, auslaufsicher, 8 Voraussetzungen der SP238 a) und b) erfüllt UN 2800 Batteries, wet, non-spillable, 8 Preconditions of SP238 a) and b) met	
ICAO-TI/IATA-DGR:	UN 2800 Batteries, wet, non-spillable, 8 Preconditions of Special Provision A67 met, "Not restricted, as per Special Provision A67" in AWB can be used.	
IMDG Code:	UN 2800 Batteries, wet, non-spillable, 8 Preconditions of SP238 a) and b) met	
VRLA Batterie / battery:	Typ, type: Hersteller, manufacturer:	VRLA Batterie Yuasa / Power Kingdom

SECTION 1: IDENTIFICATION OF THE PRODUCT AND OF THE MANUFACTURER/SUPPLIER

1.1	**Product Identifier:**	**Valve Regulated Lead-Acid (VRLA) Industrial Battery**
	Classification:	Battery, wet, non-spillable, electric storage **(Mixture)** Substance classification: UN 2800
	Product Codes:	EN & ENL, NP, NPC, NPH, NPL, NPW, RE, REC, REW, SW, SWL, TEV, FXH, UXH, UXL, Yucel, *YuVolt, YPC and YFT Series of Industrial VRLA Batteries
1.2	**Relevant Identified Uses Of The Product And Uses Advised Against**	*Relevant identified uses*: Standby: Telecoms; UPS; alarm and security systems; emergency lighting; utility switching Cyclic: Golf Trolleys, portable tools, portable lighting, wheelchairs, remote telemetry Energy storage: Photovoltaic energy systems (PVES); wind turbines
		Uses advised against: Automotive, commercial, and agricultural SLI applications *Reason why uses advised against:* High starting and ignition current demands beyond the design of internal and external current carrying components
1.3	**Details Of The Supplier Of The Safety Date Sheet**	**Supplier:** **GS Yuasa Battery Europe Ltd,** **Address**: Unit 22, Rassau Industrial Estate, Ebbw Vale, NP23 5SD United Kingdom **Contact:** **Mike TAYLOR (Product Manager)** Tel: (+44) 07733 302 242 e-mail: mike.taylor@yuasaeurope.com Language: English language only Available: Office hours only: 8am to 4pm (08:00 to 16:00)
	National Contacts:	France: Contact: Christian RAYNAUD (Technical Manager) Tel: (+33) 0474-95-90-95 e-mail: christian.raynaud@gs-yuasa.fr Language: French & English
		Germany: Contact: Thomas WALLRAFF (Manager Reserve & Renewable Energy &Technical) Tel: (+49) 02151-82095-27 e-mail: Thomas.Wallraff@gs-yuasa.de Language: German & English
		Iberia: Contact: Fernando GARCIA (Industrial Division Sales Manager) Tel: (+34) 091 748 98 19 e-mail: fernando.garcia@gs-yuasa.es Language: Spanish & English
		Italy: Contact: *Marco PETARLE (Technical) Tel: (+39) 02-3800-91-08 e-mail: marco.petarle@gs-yuasa.it Language: Italian & English
		UK: Contact: *Matthew ELWICK (Technical Manager) Tel: (+44) 01793-833-560 e-mail matthew.elwick@gs-yuasa.uk Language: English language only
		*Sweden: Contact: Michael KRAFTH (Country Manager) Tel: (+46) 36 47110 e-mail michael.krafth@gs-yuasa.se Language: English & Swedish
1.4	**Emergency telephone number:**	GS Yuasa Battery Manufacturing UK Ltd. Contact: **Mike TAYLOR (Product Manager)** Tel: **(+44) 07733 302 242** Opening Hours: Only available during office hours, 8am to 4pm (08:00 to 16:00) Language: English language only Available: Office hours only: 8am to 4pm (08:00 to 16:00)

SECTION 2: HAZARDS IDENTIFICATION – In the event of the internal battery components being exposed

2.1	Classification of the substance or mixture	
According to Regulation (EC) No. 1272/2008 (CLP) **Full text of H phrases – see section 16**	*H302	Acute toxicity 4
	H314	Skin Corr.1A
	*H315	Skin damage/irritation 1
	*H318	Eye damage/irritation 1
	*H360D	Reproductive toxicity 1A,1B
	H360Fd	Repr.1A
	*H362	May harm breast fed children
	H372	STOT RE1
	H400	Aquatic Acute 1
	H410	Aquatic Chronic 1

Adverse physicochemical, human health and environmental effects
No additional information available

2.2 Label Elements
Labelling according to Regulation (EC) No. 1272/2008 (CLP)
Hazard Pictograms (CLP)

GHS05 GHS07 GHS08 GHS09

Signal Word (CLP) - **DANGER**

Hazard Statements (CLP)	*H302	Harmful if swallowed
	H314	Causes severe skin burns and eye damage
	*H315	Causes skin irritation
	*H318	Causes serious eye damage
	*H360D	May damage the unborn child
	H360Fd	May damage fertility. Suspected of damaging the unborn child
	*H362	May cause harm to breast-fed children
	H372	Causes damage to organs through prolonged or repeated exposure
	H400	Very toxic to aquatic life
	H410	Very toxic to aquatic life with long lasting effects

Precautionary Statements (CLP)	P201	Obtain special instructions before use
	P202	Do not handle until all safety precautions have been read and understood
	P260	Do not breathe dust/fume/gas/mists/vapours/spray
	P264	Wash …. Thoroughly after handling
	P270	Do not eat, drink or smoke when using this product
	P273	Avoid release to the environment
	*P280	Wear protective gloves/protective clothing/eye protection
	*P303, 361, 353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
	*P301, 330, 331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
	*P304, 340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305, 351, 338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

2.3 Other Hazards

	VRLA Battery	**Mechanical**	VRLA Batteries can be heavy. Correct manual handling techniques and/or mechanical lifting aides (e.g. Fork Lift Truck) must be used.
		Electrical	VRLA Batteries can contain large amounts of electrical energy which can give very high discharge currents and severe electrical shock if the terminals are short circuited.
		Chemical	• The VRLA Battery presents no chemical hazards during the normal operation provided the recommendations for handling, storage, transport and usage are observed. • VRLA Batteries emit hydrogen gas which is highly flammable and will form explosive mixtures in air from approx. 4% to 76%. This can be ignited by a spark at any voltage, naked flames or other sources of ignition. • If the battery is broken and the internal components exposed, hazards may exist which require careful attention.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances present in the product

Components	**Classification according to Regulation (EC) No. 1272/2008 (ELP)[1]**	Substances	Approximate % ($^{w}/_{w}$) **Battery**	Chemical Symbol	CAS No.
Plate Grid		Metallic Lead	40 to 50	Pb	7439-92-1
		Calcium	< 0.1	Ca	7440-70-2
		Tin	*< 1	Sn	7440-31-5
Active Materials	**H360 H372 H400 H410**	Lead Monoxide	< 0.1	PbO	1317-36-8
		Lead Dioxide (Lead IV Oxide)	15 to 25	PbO_2	1309-60-0
		Barium compound	*< 2	Ba	7440-39-3
Battery Electrolyte	**H314**	Dilute Sulphuric Acid	10 to 20	H_2SO_4	7664-93-9
Case Material		**Standard Grade, UL94:HB** • ABS (Acrylonitrile-Butadiene-Styrene Copolymer)	5 to 10		9003-56-9
		Flame Retardant (FR) Grade, UL94:V0 • ABS (Acrylonitrile-Butadiene-Styrene Copolymer) • *Brominated aromatic compound. • Antimony trioxide	5 to 10 < 1.2% < 0.3%		9003-56-9 79-94-7 1309-64-4
Separator Material		Absorbent Glass Matt (AGM) Separator (100% Borosilicate Glass Microfibre)	1 to 3		65997-17-3

Inorganic lead and battery electrolyte (Dilute Sulphuric Acid) are the main components of VRLA batteries. Other substances may be present but in small amounts dependant on battery type. Contact GS Yuasa Battery Manufacturing UK Ltd for further information.

SECTION 4: FIRST AID MEASURES FOR ACUTE EXPOSURE

This information is of relevance only if the VRLA Battery has suffered damage, is broken and persons have direct contact with the internal components.

4.1 Description of first aid measures

Components		**Action**
Plate Grids and Active materials	Inhalation:	Remove the person from exposure to fresh air. Seek advice from a medical doctor
	Ingestion	Wash out mouth with water and give plenty of water to drink. Do not induce vomiting. Seek advice from a medical doctor
	Skin Contact:	Wash off with plenty of water and soap to prevent accidental ingestion or inhalation Seek medical advice if pain or rash does not reduce
	Eye Contact:	**Immediately** irrigate with eyewash solution or clean water for at least 10 minutes, holding the eyelids apart. Then take the person to hospital without further delay
	Self-protection for the first aider	Eye protection (safety glasses or face shield), and heavy-duty gloves are required. In case of inhalation, a face mask or respirator may be required.
Battery Electrolyte		**SPEED IS ESSENTIAL - OBTAIN IMMEDIATE MEDICAL ATTENTION.**
	Inhalation:	Remove the person from exposure to fresh air. If the person continues to feel unwell seek advice from a medical doctor.
	Ingestion	Wash out mouth with water and give plenty of water to drink. Do not induce vomiting. If the person continues to feel unwell seek advice from a medical doctor.

		Skin Contact:	Drench with large quantities of water. Remove contaminated clothing and place in water to dilute the acid Continue to wash the affected area for at least 10 minutes. Seek advice from a medical doctor
		Eye Contact:	**SPEED IS ESSENTIAL - OBTAIN IMMEDIATE MEDICAL ATTENTION** **Immediately** irrigate with eyewash solution or clean water for at least 10 minutes, holding the eyelids apart. Then take the person to hospital without further delay
		Self-protection for the first aider	Eye protection (safety glasses or face shield), and heavy-duty gloves are required. In case of inhalation, a face mask or respirator may be required.
	Case Material	Inhalation:	Material can burn in a fire with toxic smoke and decomposition products. Upon inhalation of decomposition products, keep patient calm, remove to fresh air, and seek advice from a medical doctor. If a large quantity is inhaled take the person to hospital. **Note to physician**: Treat according to symptoms (decontamination, vital functions), no known specific antidote.
		Ingestion	Wash out mouth with water and give plenty of water to drink. Do not induce vomiting. If the person continues to feel unwell seek advice from a medical doctor.
		Skin Contact:	Areas affected by molten material should be quickly placed under cold running water and a sterile protective dressing applied. Seek advice from a medical doctor.
		Eye Contact:	May cause irritation or injury due to mechanical action and traces of Battery Electrolyte. **Immediately** irrigate with eyewash solution or clean water for at least 10 minutes, holding the eyelids apart. Then take the person to hospital without further delay
		Self-protection for the first aider	Eye protection (safety glasses or face shield), and disposable gloves are required. In case of inhalation, a face mask or respirator may be required.
	Separator Material	Inhalation:	Remove patient from exposure to fresh air. If irritation persists, seek advice from a medical doctor
		Ingestion	Wash out mouth with water and give plenty of water to drink. Do not induce vomiting. If the person continues to feel unwell seek advice from a medical doctor.
		Skin Contact:	After contact with skin, wash immediately with plenty of soap and water. If irritation persists, seek advice from a medical doctor
		Eye Contact:	May cause irritation or injury due to mechanical action and traces of Battery Electrolyte. **Immediately** irrigate with eyewash solution or clean water for at least 10 minutes, holding the eyelids apart. Then take the person to hospital without further delay
		Self-protection for the first aider	Eye protection (safety glasses or face shield), and disposable gloves are required. In case of inhalation, a face mask or respirator may be required.

SECTION 5: FIRE-FIGHTING AND EXPLOSION HAZARD MEASURES

5	**VRLA Battery**	General Information: Explosion Hazard 	• VRLA Batteries emit hydrogen gas which is highly flammable and will form explosive mixtures in air from approx. 4% to 76%. This can be ignited by a spark at any voltage, naked flames or other sources of ignition. • Batteries in use will be part of an electrical circuit and must be isolated from the power source before attempting to put out a fire. Switch the power **OFF** before disconnecting the batteries from the power source. • Damaged batteries may expose negative plates, grey in colour, which may ignite if allowed to dry out. These plates may be wetted down with water after the battery has been removed from all electrical circuits.
5.1		Suitable Extinguisher types:	*CO_2; Dry Powder are recommended for electrical fires
		Unsuitable Extinguisher types	Water extinguishers must never be used to put out an electrical fire.
5.2		Hazardous combustion & decomposition products:	Carbon monoxide, Sulphur Dioxide, Sulphur Trioxide, Lead fume and vapour, toxic fumes from decomposition of battery case materials.
5.3		Advice for fire-fighters	Full face visor or safety goggles; Respiratory equipment or self-contained breathing apparatus (SCBA); Full acid resistant protective clothing must be worn in fire-fighting conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

This information is of relevance only if the VRLA Battery has suffered damage and is broken.

6	Components		
	VRLA Battery		VRLA batteries are designed to be safe to handle and not to leak battery electrolyte under normal conditions. In case of accidental damage heavy-duty gloves are required to pick-up the battery to protect against unseen electrolyte leakage
	Plate Grids and Active Materials	Personal Precautions:	Eye protection (safety glasses or face shield), and heavy-duty gloves are required. If the material is wet, a face mask or respirator is not required If the material is dry, a face mask or respirator is required
		Clean-up Methods:	Large, solid pieces may be picked up and bagged for recycling. Never use a brush to sweep up debris; it may create Lead-dust in the air. Wet clean the spill area to remove all traces of debris. Battery debris and cleaning materials must be collected and placed in an inert sealed container (e.g. self-seal plastic bag or bucket) for disposal, see Section 13.
		Environmental Precautions:	Do not allow material to enter a watercourse. Exposed Lead materials must be placed in an inert sealed container (e.g. self-seal plastic bag or bucket) for disposal, see Section 13.
	Battery Electrolyte:	Personal Precautions:	Ensure suitable, acid resistant personal protective clothing (including heavy-duty gloves, safety glasses and respiratory protection) is worn during removal and clean-up of spillages.
		Clean-up Methods: Small spillages:	Neutralise and absorb the spillage using soda ash, sodium bicarbonate (available from supermarkets), sodium carbonate or calcium carbonate powder. Wet clean the spill area to remove all traces of debris. Battery debris and cleaning materials must be collected and placed in an inert sealed container (e.g. self-seal plastic bag or bucket) for disposal, see Section 13.
		Large spillages:	Large amounts of electrolyte spillage are unlikely with VRLA batteries since the electrolyte is fully absorbed in the active materials and separator. Bund the spillage area using dry sand, earth, sawdust or other inert material. Neutralise the electrolyte using soda ash, sodium bicarbonate (available from supermarkets), sodium carbonate or calcium carbonate powder. Wet clean the spill area to remove all traces of debris and electrolyte. Cleaning materials must be collected and placed in an inert sealed container (e.g. self-seal plastic bag or bucket) for disposal, see Section 13.
		Environmental Precautions:	Battery electrolyte must not be allowed to enter any drains or sewage system or water course.
	Case Material:	Clean-up Methods:	Assume battery case material is contaminated and proceed as for **Plate Grids and Active Materials** above.
	Separator Material:	Clean-up Methods:	Assume battery case material is contaminated and proceed as for **Plate Grids and Active Materials** above.

Note: If appropriate refer to 8 and 13

SECTION 7: HANDLING AND STORAGE

7.1	**Component:**		
	VRLA Battery	Precautions For Safe Handling:	Only trained operators should be allowed to handle VRLA batteries.
			PPE: No specialist protective clothing or equipment is required, except that for handling heavy weights.
			Hygiene: There are no specialist requirements beyond good, standard workplace practices,
			Mechanical lifting aides: (e.g. FLT and pallet trucks) will be required to move pallets of batteries. Weight approximately 1 tonne
			Mechanical handling aides: (e.g. trucks and lifters) will be required to handle individual batteries over 25 kg in weight.
			General Safety Considerations: Do not drop batteries: dents and deformation of the case may be an indication of internal damage to the battery. Cracks will allow electrolyte to escape. Do not place VRLA Batteries lid-to-lid so that terminals will short-circuit.
7.2		Conditions For Safe Storage, Including Any Incompatibilities:	Store VRLA Batteries in a cool, well-ventilated area with a solid, impervious surface, and adequate containment in the event of accidental acid spillage.
			Store under a roof and protect against direct sunlight and adverse weather conditions including rain, snow and other sources of water.
			Storage of large quantities of VRLA batteries may require approval from local environmental protection agency and/or local water authorities.
			Pallets of VRLA Batteries are heavy. Store at ground level or in lower levels of

			storage systems (e.g. racking).
			Take special care in dry conditions to avoid the risk of electrostatic discharges.
			Protect against physical damage and exposure to organic solvents and other incompatible materials.
			Do not store VRLA batteries close to sources of heat, naked flames and sparks.
			Store batteries in their original packaging wherever possible. When batteries are removed from their original packaging (e.g. for transportation of small quantities), ensure new packaging protects the batteries from damage and the risk of short-circuit of the terminals.
		End-of-Life (EC WEEE Regulations)	Ensure batteries are removed from equipment at the end of life and are collected for recycling by an approved contractor.
7.3		Specific End Uses: Installation:	1. Refer to EN IEC 62485-1, Safety requirements for secondary batteries and battery installations. General safety information 2. Refer to EN IEC 62485-2, Safety requirements for secondary batteries and battery installations. Stationary batteries

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

	Components		
8.1	**VRLA Battery**	Control Parameters:	There are no special control parameters for the handling, storage, installation of VRLA Batteries.
			VRLA Batteries emit hydrogen gas which is highly flammable and will form explosive mixtures in air from approximately 4% to 76%. Never install VLRA Batteries in a gas-tight enclosure during storage, transport or usage.
8.2		Exposure Control:	There are no special exposure controls for the handling, storage, installation or use of VRLA Batteries.
8.3		Personal Protection:	When there is no evidence of damage or visible traces of liquid (electrolyte) or solid deposits on the batteries they may be handled safely without extra personal protective equipment. Ensure electrical insulation equipment is used when installing batteries. (e.g. insulated mats and covers; insulated tools) Remove ALL metallic objects from the person when working with VRLA Batteries: e.g. Jewellery (rings, watches, bracelets, necklaces), pens, torches, etc. Where there are signs of damage or liquid (electrolyte) or solid deposits, rubber gloves and acid resistant clothing must be worn when handling the batteries and affected packaging to protect against the effects of any electrolyte that may be present. If it is suspected that free electrolyte is present, then safety glasses must be worn, and if large amounts are present, chemical goggles or face shield should be used.
		UL CAUTIONARY STATEMENT:	"Warning: Risk of fire, explosion, or burns. Do not disassemble; heat above 50°C; or incinerate".

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

	Components	
9.1	**VRLA Battery**	• The main components are listed in **SECTION 2** above. • The undamaged product is a manufactured article in an inert plastic (ABS) case, which will burn if subjected to high temperatures or sources of ignition. Some battery types are made with Flame Retardant ABS cases, see technical specification. These batteries carry the suffix 'FR' after the battery type; e.g. NP24-12IFR

The information below refers to the physical and chemical properties of the main VRLA Battery components and substances. This information is published for reference only.

	Plate Grids and Active materials:	Appearance		Safety-related data	
		Form	Solid	*Solidification point*	327 °C
		Colour	Grey or brown	*Boiling point*	1740 °C
		Odour	Odourless	*Solubility in water*	Very low (0.15mg/l)
				Solubility in acid or alkaline solutions	Yes, dependant on the strength of solution.
				Density (at 20°C)	11.35 g/cm^3
				Vapour pressure (at 20°C)	*Undetectable
	Battery Electrolyte:				
		Form	Liquid	*Solidification point*	-35 to -60 °C
		Colour	Colourless	*Boiling point*	Approx. 108 to 114 °C
		Odour	Odourless	*Solubility in water*	Complete
				Density (at 20°C)	Variable up to 1.350 g/cm^3
				Vapour pressure (at 20°C)	*10-20 mmHg

	Case Material:	Appearance		Safety-related data	
		Form	Solid	*Softening point*	> 100 °C (DIN 53460)
		Colour	Grey or black	*Flash Point*	>330 °C
		Odour	Slight Odour	*Solubility in water*	Insoluble
				Solubility in other solvents	Soluble in polar solvents, aromatic solvents, chlorinated hydrocarbons.
				Density (at 20°C)	1.07-1.4 g/cm^3 (DIN 53479)
				*Vapour pressure (at *20°C)*	*Undetectable
	Separator Material:				
		Form	Fibrous material	*Solidification point*	*820°C
		Colour	White	*Boiling point*	*>2500°C
		Odour	Odourless	*Solubility in water*	Insoluble
				Density (at 20°C)	*2.23g/cm^3
				Vapour pressure (at 20°C)	*Undetectable

SECTION 10: STABILITY AND REACTIVITY

	Components		
10.1	**VRLA Battery**	Stability:	Within the operational temperature range -20 to +50 °C the undamaged product is stable.
10.4	**Plate Grids and Active materials:**	Materials & Conditions to Avoid:	Powdered Lead reacts violently with fused ammonium nitrate and sodium acetylide. Reacts violently when in contact with chlorine trifluoride.
10.3	**Battery Electrolyte:**	Possibility of Hazardous Reactions	• Dilution of the higher concentrated grades with water may liberate excessive heat. • Highly reactive with metals and organic materials. • On contact with metals, may generate hydrogen which forms explosive mixtures with air. • Destroys organic materials such as cardboard, wood, textiles, etc. • Vigorous reaction with sodium hydroxide and alkalis.
10.6		Hazardous Decomposition Product(s):	• Sulphur oxides
10.1	**Case Material:**	Materials & Conditions to Avoid:	• To avoid thermal decomposition, do not overheat. • Starts to decompose at temperatures >275°C.
			• Powerful oxidising agents.
10.6		Hazardous decomposition products:	• Monomers, other degradation products, traces of hydrogen cyanide.
10.1	**Separator Material:**	Stability:	• Stable material.
10.4		Materials & Conditions to Avoid:	• Incompatible with Hydrofluoric acid and concentrated Sodium Hydroxide.
10.6		Hazardous decomposition products:	• No hazardous polymerisation expected.

SECTION 11: TOXICOLOGICAL INFORMATION

This information is of relevance only if the VRLA Battery has suffered damage and is broken.

	Components		
11	**VRLA Battery**		• This information does not apply to the undamaged VRLA Battery. It is of relevance if the battery is broken and the components are released to the environment. • Exposure limits may vary according to national law and regulations.
11.1	**Plate Grids: Metallic Lead, Lead alloys.**	Acute Toxicity 	• Toxic by ingestion or inhalation • Chronic poison • Lead is a poison that affects virtually every system in the body • Symptoms include fatigue, headaches, constipation, aching bones and muscles, gastrointestinal tract disturbances and reduced appetite • Blood Lead levels of 80 µg/dl and above have been associated with both acute and chronic effects of Lead poisoning
	Active materials: Lead dioxide.	Acute Toxicity 	• Toxic by ingestion or inhalation • Chronic poison • Chronic exposure to Lead compounds may lead to a build-up of Lead in the body, giving rise to a variety of health problems, including anaemia, kidney and liver damage, impaired eyesight, memory loss and CNS[2] damage

[2] CNS = Central Nervous System

	Battery Electrolyte:	Corrosive 	Corrosive, the more concentrated solutions can cause serious burns to the mouth, eyes and skin Harmful by ingestion and through skin contact
		Inhalation: 	Mist is a severe irritant to the respiratory tract. Fluid build-up on the lung (pulmonary oedema) may occur up to 48 hours after exposure and could prove fatal
		Ingestion: 	Will immediately cause severe corrosion of and damage to the gastrointestinal tract
11.1	**Battery Electrolyte:**	Skin Contact: 	Causes severe chemical burns
		Eye Contact: 	Risk of serious damage to eyes. Causes severe burns. May cause prolonged or permanent damage or even total loss of sight. Mist will cause irritation
	Case Material:		According to information available the product is not harmful to health provided it is correctly handled and processed according to the given recommendations.
	Separator Material:		Based on animal implantation and epidemiologic studies glass microfibers are thought to have some limited carcinogenic potential and as such are designated as Group 2B materials (IARC, US). The material should be treated as a category 3 carcinogen (Europe). Limited evidence of carcinogenic effect.

SECTION 12: ECOLOGICAL INFORMATION

This information is of relevance only if the VRLA Battery has suffered damage and is broken.

	Components		
12.1	**VRLA Battery**		This information does not apply to the undamaged VRLA Battery. It is of relevance if the battery is broken and the components are released to the environment.
12.2	**Plate Grids and Active materials:**	Metallic Lead, Lead alloys and Lead dioxide. 	Chemical and physical treatment is required for the elimination of Lead from water. Waste water containing Lead must not be disposed of in an untreated condition.
		Ecotoxicity:  H Phrase H400 &410	• Lead metal in massive form is not classified as hazardous to the aquatic environment, due to its low solubility and rapid removal from the water column. Inorganic lead compounds are considered to be acutely toxic in the environment and also to present a long-term hazard to aquatic organisms.
		Effect in the aquatic environment: 	• Toxicity for fish: 96 h LC 50 > 100 mg/l • Toxicity for daphnia: 48 h EC 50 > 100 mg/l • Toxicity for alga: 72 h IC 50 > 10 mg/l

12.3	**Battery Electrolyte:**	Ecotoxicity: 	• In order to avoid damage to the sewerage system, the acid has to be neutralised by means of soda ash, sodium bicarbonate or sodium carbonate before disposal. • Ecological damage is possible by change of pH. The electrolyte solution reacts with water and organic substances, causing damage to flora and fauna. • The electrolyte may also contain components of Lead that can be toxic to aquatic environments.
		Persistence and Degradation:	Remains indefinitely in the environment as sulphate.
12.4	**Case Material:**	Elimination information:	No data available: insoluble in water
		Behaviour and environmental fate:	Due to the consistency of the product, and its insolubility in water, it will apparently not be bio-available.
12.5	**Separator Material:**		No data available: insoluble in water Not thought to pose any risk to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

	Components		
13.1	**VRLA Battery**	Europe:	• Spent (used) VRLA Batteries are subject to the requirements of the Batteries Directive 2006/66/EC on batteries and accumulators and waste batteries and accumulators. Spent (used) VRLA Batteries MUST be sent for recycling through an authorised contractor at the end-of-life. • The WEEE Directive 2002/96/EC (Waste Electrical and Electronic Equipment) applies. Spent (used) VRLA Batteries MUST be removed from electrical and electronic equipment at the end-of-life.
		Worldwide:	• VRLA batteries contain inorganic Lead compounds and Sulphuric Acid which are damaging to the environment. • Spent (used) batteries must be disposed of in an environmentally friendly manner in accordance with local national laws and regulations.
			• VRLA batteries must not be dismantled, burnt or incinerated as a means of disposal. • At the end of life VRLA batteries may still be electrically 'live' and contain a large amount of electrical energy. The same care and attention to safe handling should be taken as when handling new batteries. Particular care must be taken to avoid short-circuiting the battery terminals.
13.2	**Plate Grids and Active materials:**	Europe Worldwide	• Metallic Lead and active materials (Lead Oxides) must be recycled. • Disposal must be carried out in accordance with the European Hazardous Waste Directive 2008/98/EC
13.3	**Battery Electrolyte:**	Europe	• Disposal must be carried out in accordance with the European Hazardous Waste Directive 2008/98/EC on the protection of the environment through criminal law
		Worldwide	• Disposal should be in accordance with local, state or national legislation.
		General	• Battery electrolyte is dilute Sulphuric Acid, the strength of which depends on the state of charge of the batteries. It must be neutralised before disposal. See SECTION 6 for clean-up and disposal advice.
13.3	**Case Material:**		• Do not dispose of this product into sewers, any ocean or water course in order to prevent marine animals and birds from ingesting. • Recycling is encouraged. • Disposal by controlled incineration or source landfill in accordance with local national laws and regulations may be acceptable.
13.4	**Separator Material:**		• Constitutes a special waste by virtue of hazardous substance content. • Dispose of via approved landfill site. Disposal by controlled source landfill in accordance with local national laws and regulations may be acceptable.

SECTION 14: TRANSPORT INFORMATION

	Components		
14.1	**VRLA Battery**	Land Transport	Land Transport (ADR / RID) • UN N°: UN2800 • Classification ADR / RID: Class 8 • Proper Shipping Name: BATTERIES, WET, NON-SPILLABLE electric storage • Packing Group ADR: not assigned • Tunnel code: E • ADR / RID: New and spent (used) batteries are exempt from all ADR / RID (special provision 598)

		Sea Transport	Sea transport (IMDG Code) • UN N°: UN2800 • Classification: Class 8 • Proper Shipping Name: BATTERIES, WET, NON-SPILLABLE electric storage • EmS: F-A, S-B Non-Spillable batteries meet the requirements of Special Provision 238 *parts 1 & 2; they are exempt from all IMDG codes and are not subject to special regulation for sea transport
		Air Transport	Air Transport (IATA-DGR) • UN N°: 2800 • Classification: Class 8 • Proper Shipping Name: BATTERIES, WET, NON-SPILLABLE electric storage • Special Provision A48: Packaging test are not considered necessary • Special Provision A67: Yuasa's VRLA batteries meet the requirements of Packing Instruction 872. The battery has been prepared for transport so as to prevent: a) A short-circuit of the battery's terminals by packaging in a strong and sturdy carton box; AND/OR b) The battery has been fitted with an insulating cover (made from ABS) which prevents contact with the terminals. c) Unintentional activation is thus prevented The words "NOT RESTRICTED" and the Special Provision (SP) number must be indicated on all shipping documents • Special Provision: A164: The battery has been prepared for transport so as to prevent: a) Short-circuit of the battery's terminals by packaging in a strong and sturdy carton box; AND/OR b) The battery has been fitted with a cover (made from ABS) which prevents contact with the terminals c) Unintentional activation is thus prevented

SECTION 15: REGULATORY INFORMATION

	Components		
15.1	**VRLA Battery**	Required Markings:	
			Crossed-out wheeled bin indicating "**SEPARATE COLLECTION**" for all batteries and accumulators. Not to be disposed of with general domestic, commercial or industrial waste. Ref: The Batteries Directive 2006/66/EC
		Pb	The **Pb** symbol indicates the heavy metal content of the battery and enables the Lead-Acid battery to be sorted for recycling. Ref: The Batteries Directive 2006/66/EC.
			The International Recycling Symbol, required by law in many countries world-wide to facilitate the identification of secondary batteries and accumulators for recycling. Ref: IEC 61429 : 1995, Marking of secondary cells and batteries with the International Recycling Symbol ISO 7000-1135.
		EC Directives	Directive 2006/66/EC, on batteries and accumulators and waste batteries and accumulators Paragraph (Recital) 29 states: "Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment does not apply to batteries and accumulators used in electrical and electronic equipment." REACH Candidate List (SVHC) Contains the following substances from the list of candidate substances of REACH: Lead (EC 231-100-4, CAS 7439-92-1) *Tetrabromobisphenol A (EC 201-236-9, CAS 79-94-7) only for FR (V0) models PIC Regulation (Prior Informed Consent) Substances subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals: lead dioxide (1309-60-0), lead sulphate (7446-14-2) POP Regulation (Persistent Organic Pollutants) Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants Ozone Regulation (1005/2009)

			Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer. Explosives Precursors Regulation (2019/1148) Contains substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors. ANNEX I RESTRICTED EXPLOSIVES PRECURSORS List of substances which shall not be made available to, or introduced, possessed or used by, members of the general public, whether on their own or in mixtures or substances that include those substances, unless the concentration is equal to or lower than the limit values set out in column 2, and for which suspicious transactions and significant disappearances and thefts are to be reported to the relevant national contact point within 24 hours.

SECTION 16: OTHER INFORMATION

	Components		
16 (a)	**Revision Information**	*Issue19 : 08/03/2023 Updated contact information & reviewed hazard and precautionary warnings 5.1 Removed foam as recommended extinguisher 7.3 updated to current standard reference 15.1 added newly listed SVHC substance for FR models	
16 (b)	**Abbreviations**	**Pb** – the chemical symbol for Lead **Ba** – the chemical symbol for Barium **Ca** – the chemical symbol for Calcium **Sn** – the chemical symbol for Tin **PbO_2** – the chemical formulae for Lead Dioxide **H_2SO_4** – the chemical formulae for Sulphuric Acid **VRLA** – **V**alve **R**egulated **L**ead-**A**cid battery	
16 (c)	**Key literature references and sources of data**	SDS documents from suppliers for components and raw materials	
16 (d)	***Full text of H phrases:**	H302	Harmful if swallowed
		H314	Causes severe skin burns and eye damage
		H315	Causes skin irritation
		H318	Causes serious eye damage
		H360D	May damage the unborn child
		H360Fd	May damage fertility. Suspected of damaging the unborn child
		H362	May cause harm to breast-fed children
		H372	Causes damage to organs through prolonged or repeated exposure
		H400	Very toxic to aquatic life
		H410	Very toxic to aquatic life with long lasting effects
16 (e)	**Training Advice**	• Only trained, competent personnel, who have received special instructions for the hazards and risks, should be allowed to handle VRLA Batteries. • See Section 7.1 for general advice	

16 (f)	**Further Information**	To ensure the safe use of VRLA Industrial Batteries supplied by GS **YUASA**, the following precautions must be observed: • Warning: Risk of fire, explosion, or burns. Do not disassemble, heat above 50°C, or incinerate. • Never short-circuit battery terminals, since sparks and arcs produced can injure personnel and are a fire and explosion hazard. • Batteries must always be charged on a voltage-regulated charging system with adequate ventilation provided to avoid the build-up of ignitable gases and to promote good heat dissipation. • Do not charge VRLA Batteries above + 50 ºC, discharge or store above + 60 ºC. • Under extreme conditions of charging equipment malfunction and/or battery failure, high voltage and high temperature conditions may occur causing the evolution of Hydrogen Sulphide (H_2S) gas, which is toxic. If detected by its odour of rotten eggs (at extremely low concentrations), switch off the charging equipment, evacuate all personnel from the area and ventilate well. Seek advice before attempting to re-start charging • **NEVER PLACE VRLA BATTERIES INSIDE SEALED OR GAS-TIGHT ENCLOSURES DURING OPERATION, TRANSPORT AND STORAGE** VRLA Batteries emit hydrogen gas which is highly flammable and will form explosive mixtures in air from approximately 4% to 76%. This can be ignited by a spark at any voltage, naked flames or other sources of ignition

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Effective 1 January, 2011 PI 806 IATA-DGR will be transferred to PI 872 IATA-DGR. Siemens AG, December 2010.
Effective 1 January,2019 the classification criteria have been deleted in PI 872 IATA-DGR and implemented in A67. Siemens AG, January 2019

Manufacturer's or Supplier's Certification for UN 2800 Batteries, wet, non-spillable

concerning the transport according to the dangerous goods regulations of the different transport modes

Battery model name:

YUASA valve regulated lead-acid types; rechargeable batteries
Battery series: **NP**, **NPC**, **NPH**, **NPL**, **NPW**, **RE**, **REC**, **SWL**, **UXL**, **UXH**, **UXF** and **ENDURANCE** (**EN** / **ENL** / **FT**)

The battery is non-spillable because it fulfils[1]

SP 238 a) UN Recommendations on the transport of dangerous goods, as adopted in
SP 238 a) ADR/RID/IMDG CODE; **PI 806** IATA-DGR:

- ☆ Vibration test
- ☆ Pressure differential test

The battery fulfils also[2]

SP 238 b) UN Recommendations on the transport of dangerous goods, as adopted in
SP 238 b) ADR/RID/IMDG CODE; **A67** IATA-DGR:

- ☆ At a temperature of 55° C the electrolyte will not flow from a ruptured or cracked case and there is no free liquid to flow

Name and address of manufacturer or supplier:

YUASA Battery (Europe) GmbH
Wanheimer Strasse 47
40472 Düsseldorf / Germany

Place: 40472 Düsseldorf / Germany Date: 18.08.2008

Responsible Person: ppa Dirk Möhlendick
Manager Procurement & Logistic

Signature: YUASA BATTERY (EUROPE) GMBH
WANHEIMER STRASSE 47
40472 DÜSSELDORF
GERMANY

[1] Necessary for the classification as non-spillable.
Only for road and railway transport: If the conditions of SP 598 are fulfilled, the battery is not subject for the other regulations of ADR/RID.

[2] If this condition is also fulfilled: The battery is not subject to the dangerous goods regulations if the terminals are protected from short circuit when packed for transport (strong outer packagings).
Additonal state variations have to be met.
Hint: For air transport the following declaration must be given in the Air Way Bill:
"Not restricted, as per Special Provision A67"

BCTC 倍测检测

安 全 技 术 说 明 书(MSDS)

Material Safety Data Sheet

报 告 编 号: Report No:	BCTC2212940436B
委 托 单 位: Applicant	深圳市三力电源科技有公司 Shenzhen Power Kingdom Co., Ltd.
产 品 名 称: Product Name:	密封铅酸蓄电池 SEALED LEAD-ACID BATTERY
产 品 型 号: Product Type:	PS7-12(12V7AH)
签 发 时 间 : Issued Date:	2022-12-28（生效日期：2023-01-01）
编 制: Prepared By:	Andre Yu
批 准: Approved By:	Peter pan

深 圳 市 倍 测 检 测 有 限 公 司

Shenzhen BCTC Testing Co., Ltd.

* The MSDS is prepared based on the information provided by client. The contents and formats of this MSDS are revised as per client's request.
这份材料安全数据表是根据客户提供的信息编辑，其内容和格式按客户要求来修订。

Section 1-Chemical Product and Company Identification
第一部分-化学品及企业标识

Product Name 产品名称	密封铅酸蓄电池 SEALED LEAD-ACID BATTERY
Model 型号	PS7-12(12V7AH)
Trade Mark 商标	POWER KINGDOM
Ratings 额定参数	12V, 7Ah
Weight 重量	2kg
Manufacturer 制造商	河南豫光金铅集团铅盐有限责任公司 Henan Yuguang Gold&Lead Group Lead Salt Co.,Ltd.
Manufacturer Address 制造商地址	河南省济源市济水大街东段680号 East 680, Jishui Streen, Jiyuan City, Henen
Emergency Telephone 应急电话	+86-391-6600301
Fax 传真	/

Section 2- Composition Information
第二部分-成分信息

Chemical Composition 化学成分	**CAS No. CAS号**	**Weight (%) 含量(%)**	**Trade Secret 商业机密**
Lead and lead oxide 铅和氧化铅	7439-92-1	61.97	*
Electrolytic solution 电解溶液	7664-93-9	23.88	*
Glass fibre separator 玻璃纤维分离器	65997-17-3	3	*
ABS ABS塑料	9003-56-9	11.15	*

" * " The exact percentage (concentration) of composition has been withheld as a trade secret.
" * "准确的百分比(浓度)的构成已经作为商业机密。

Section 3- Hazards Identification
第三部分-危险性概述

Emergency overview: 紧急情况概述	N/A 不适用
Classification according to GHS GHS分类	Not a dangerous substance according to GHS 不属于GHS危险物品
Label elements: 标签元素	
Hazard pictogram(s) 危险标签图	No available 不适用
Signal word 提示语	No available 不适用

Hazard statement(s) **危险声明**	No available 不适用
Precautionary statement(s): **预防声明**	
Prevention **预防**	No available 不适用
Response **反应**	No available 不适用
Disposal **处理**	No available 不适用
Environmental hazards: **环境危害**	No relevant information 无相关信息
Important symptoms: **重要症状**	See section 11 for more information 见第11部分更多信息
Section 4- First Aid Measures **第四部分-急救措施**	
Eye contact **眼睛接触**	Flush eyes with plenty of water for least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. 万一接触，立即用大量的清水冲洗至少15分钟，翻起上下眼脸，直到化学的残留物消失为止，迅速就医。
Skin contact **皮肤接触**	Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid. 万一接触，用大量的水冲洗至少15分钟，同时除去污染的衣物和鞋子，迅速就医。
Inhalation **吸入**	Remove from exposure and move to fresh air immediately. Use oxygen if available. 立即从暴露处移至空气清新处，如果呼吸困难给予输氧，立即就医。
Ingestion **摄入**	Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician. 饮用两杯牛奶或水，如果当事人仍然清晰可以采取催吐的方法，并且立即就医。
Section 5- Fire Fighting Measures **第五部分-消防措施**	
Flash Point **燃点**	N/A 不适用
Auto-Ignition Temperature **自燃温度**	N/A 不适用
Extinguishing Media **灭火介质**	H_2O, CO_2 水，二氧化碳
Special Fire-Fighting Procedures **特殊灭火程序**	Self-contained breathing apparatus 自给式呼吸器
Unusual Fire and Explosion Hazards **异常火灾或爆炸**	Cell may vent when subjected to excessive heat-exposing battery contents 当电芯暴露于过热的环境中时，安全阀可能会打开
Hazardous Combustion Products **燃烧产生的危险物品**	Carbon dioxide, acid, hydrogen and oxygen. 二氧化碳、酸、氢气和氧气。
Section 6- Accidental Release Measures **第六部分-泄露应急处理**	

Personal precautions, protective equipment and emergency procedures:
If the battery is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. The preferred response is to leave the area and allow the vapors to dissipate, Avoid skin and eyes contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerated. If leakage of the battery happens, liquid could be absorbed by using sand, earth or other inert substance and contaminated area should be ventilated meantime.

个人预防措施、保护设备和应急程序:
如果电池被泄露，让人员离开该区域直到烟雾消散。提供最大限度的通风，清除有害气体。首选的反应就是离开这个地区并消散气体，避免皮肤和眼睛接触或吸入气体。用吸收剂清除溢出的液体然后焚烧。如果电池泄漏发生时,液体可以用砂、泥土或其他惰性物质来吸收，污染区域应该保持通风。

Environment precautions:
Do not allow product to reach sewage system or any water source.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

环境预防措施:
不允许产品到达排水系统或任何水源。
如果渗透进排水系统或任何水源，通知相应的部门。
不允许进入下水道/表面或地下水。

Methods and material for containment and cleaning up:
If battery casing is dismantled, small amounts of electrolyte may leak. Collect all released material in a plastic lined container. Dispose off according to the local law and rules, Avoid leached substances to get into the earth, canalization or waters.

抑制和清理材料的方法:
如果电池外壳被拆除，少量电解液可能会泄漏。收集所有材料放进一个塑料容器。根据当地的法律法规来处置，避免可溶物质进入大地、下水道或水源。

Section 7- Handling and Storage
第七部分-操作处置和储存

Handling **操作处置**	The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids. 禁止打开、毁坏或焚烧电池，因为电池有可能在这些处理过程中发生爆炸、破裂或泄露等事故。 禁止将电池短路、过充、强制放电或扔入火中。 禁止挤压或刺穿电池，或将电池浸入溶液中。
Storage **储存**	Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods. 禁止物理或电滥用，禁止高温储存，最好将电池储存在阴凉、干燥、通风及温度变化较小的环境中。 禁止将电池接触加热设备，或将电池长时间直接暴露在阳光中。
Other Precautions **其他要注意的防范措施**	The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity. 拆解、挤压、直接放入火中或高温条件下，电池可能发生爆炸和燃烧。 禁止短接或将电池正负极错误的安装在设备中。

Section 8- Exposure Controls/Personal Protection

第八部分-接触控制和个体防护	
Engineering Controls **设计控制**	Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor. Keep away from heat and open flame. Store in a cool, dry place. 设计局部排气通风或其它设计来控制粉尘、雾、烟雾和气体。
Personal Protective Equipment **个人防护装备**	Respiratory Protection: Not necessary under normal conditions. Skin and body Protection: Not necessary under normal conditions, Wear suitable protective clothing and gloves if handling an open or leaking battery. Hand protection: Wear suitable gloves if handling an open or leaking battery. Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery. 呼吸防护:在正常情况下不需要。 皮肤和身体防护：在正常情况下不需要,如果处理一个裂开的或泄漏的电池需要穿戴适当的防护服和手套。 手保护：如果处理一个裂开的或泄漏的电池需要戴适当手套。 眼睛保护：在正常情况下不需要，如果处理一个裂开的或泄漏的电池需要戴上安全眼镜。
Other Protective Equipment **其它防护装备**	Have a safety shower and eye wash fountain readily available in the immediate work area. 在工作区域应该有一个立即可以使用的安全淋浴和喷水洗眼器。
Hygiene Measures **卫生措施**	Do not eat, drink, or smoke in work area. Maintain good housekeeping. 在工作区域不得进食，饮水或吸烟。
Section 9- Physical and Chemical Properties **第九部分-物理和化学特性**	
Form **形态**	Solid 固体
Color **颜色**	黑色 Black
Odour **气味**	No available 不适用
pH **酸碱度**	No available 不适用
Melting point/freezing point **熔点/凝固点**	No available 不适用
Boiling Point and Boiling range **沸点、沸点范围:**	No available 不适用
Flash Point **易燃度**	No available 不适用
Upper/lower flammability or explosive limits **自燃或爆炸的上、下极限**	No available 不适用
Vapor Pressure **蒸汽压**	No available 不适用
Vapor Density **蒸汽密度**	No available 不适用
Relative density **相对密度**	No available 不适用
Solubility in Water **水溶性**	No available 不适用

Auto-ignition temperature **自燃温度**	No available 不适用
Decomposition temperature **分解温度**	No available 不适用
Evaporation rate **蒸发速率**	No available 不适用
Flammability (soil, gas) **易燃性(土壤、天然气)**	No available 不适用
Viscosity **粘性**	No available 不适用
Section 10- Stability and reactivity **第十部分 稳定性和反应活性**	
Stability **稳定性**	The product is stable under conditions described Section 7 产品在第七部分所诉的条件下稳定
Conditions to Avoid **应避免的条件**	Heat above 70℃ or incinerate. Deform, Mutilate, Crush, Disassemble, Overcharge, Short circuit, Expose over a long period to humid conditions. 加热 70℃ 以上或焚烧、变形、毁坏、粉碎、拆卸、过充电、短路，长时间暴露在潮湿的条件下。
Incompatible Materials **不兼容的材料**	Oxidizing agents, acid, base. 氧化剂，酸，碱。
Hazardous Decomposition Products **危险分解物**	Sulfuric acid mist, metal oxides, hydrogen and oxygen. 硫酸雾、金属氧化物、氢气和氧气。
Possibility of Hazardous Reaction **危险反应的可能性**	Not Available 不适用
Section 11 – Toxicological Information **第十一部分-毒理学资料**	
Irritation **刺激**	Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur. 如果电芯的外壳受到机械、热或电的滥用到达一定程度，会发生刺激的风险。如果发生这种情况，可能会刺激皮肤、眼睛和呼吸道。
Sensitization **致过敏**	Not Available 不适用
Neurological Effects **影响神经系统**	Not Available 不适用
Teratogenicity **致畸**	Not Available 不适用
Reproductive Toxicity **再生毒性**	Not Available 不适用
Mutagenicity (Genetic Effects) **诱变(遗传效应)**	Not Available 不适用
Toxicologically Synergistic Materials **附带材料毒理性**	Not Available 不适用

Section 12- Ecological Information 第十二部分-生态学资料	
Ecological Toxicity **生态毒性**	Not Available 不适用
Mobility in soil **在土壤中的流动性**	Not Available 不适用
Persistence and Degradability **持久性和分解性**	Not Available 不适用
Bioaccumulation potential **生物聚积**	Not Available 不适用
Other Adverse Effects **其他不利影响**	Not Available 不适用
Section 13- Disposal Considerations **第十三部分-废弃处置**	
Product disposal recommendation **产品废弃处理建议**	Observe local, state and federal laws and regulations. 遵守当地、州和联邦法律和法规。
Packaging disposal recommendation **包装处理建议**	Disposal must be made according to official regulations 废弃处理必须根据当地法规
Section 14 – Transport Information **第十四部分-运输信息**	
Label for conveyance **运输标签**	N/A 不适用
UN Number **UN编号**	--
Transport hazard class(es) **运输风险类别**	--
Packing group **包装等级**	N/A 不适用
Marine pollutant **海洋污染物**	No 无污染
UN Proper shipping name **联合国运输专用名称**	BATTERIES, WET, NONSPILLABLE, electric storage 蓄电池，湿的，密封的蓄电

Transport information:

This goods shall be considered Not Restricted Goods and need to be complied with the requirements of Packing Instruction 872 of special provision A67 of 64th DGR Manual of IATA or special provision 238 of IMDG CODE (Amdt. 40-20) or European Agreement Concerning the International Carriage of Dangerous Goods by Road(ADR 2019 Volume I)

The words “Not Restricted” and the Special Provision number must be included in the description of the substance on the Air or Sea Waybill.

Transport Fashion: By air, by sea, by Road.

该货物应视为非限制货物，并且必须符合包装要求IATA第64 DGR手册的特殊规定A67的指令872或IMDG CODE的特殊规定238的指令（第40-20号修正案）或《关于国际公路危险货物运输的欧洲协定》（ADR 2019第I卷）

在空运或海运的货运单上应包含“Not Restricted”及特殊规定条款号。

运输方式：空运，海运，公路。

Section 15- Regulatory information
第十五部分 法规信息

Law information
法律信息

《Dangerous Goods Regulations》
《危险物品规则》
《Recommendation on the Transport of Dangerous Goods Model Regulations》
《对危险货物运输的有关规定的建议》
《International Maritime Dangerous Goods》
《国际海运危险货物规则》
《Technical Instructions for the Safe Transport of Dangerous Goods》
《危险品安全运输技术指令》
《Classification and code of dangerous Goods》
《危险货物分类和品名编号》
《Occupational Safety and Health Act》(OSHA)
《职业安全卫生法》
《Toxic Substance Control Act》(TSCA)
《有毒物质控制法》
《Consumer Product Safety Act》(CPSA)
《消费产品安全法》
《Federal Environmental Pollution Control Act》(FEPCA)
《联邦环境污染控制法》
《The Oil Pollution Act》(OPA)
《石油污染控制法》
《Superfund Amendments and Reauthorization Act Title III (302/311/312/313)》(SARA)
《超级基金修正案和再授权法案III(302/311/312/313)》
《Resource Conservation and Recovery Act》(RCRA)
《资源保护及恢复法案》
《Safety Drinking Water Act》(CWA)
《安全饮用水法》
《California Proposition 65》
《加州65提案》
《Code of Federal Regulations》(CFR)
《美国联邦法规》

In according with all Federal, State and local laws.
根据所有联邦、州和地方法律。

Section 16- Other Information
第十六部分-其它信息

The information above is believed to be accurate and represents the best information currently available to us. However, concorde makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation. This material safety data sheet provides guidelines for the safe handling and use of this product; it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required.

上面的信息被认为是准确代表了目前最好的信息提供给我们。然而,飞机没有对商品性能保证或任何其他保证,包括明示或暗示,对这类信息的使用我们不承担责任。用户应作出自己的调查，以确定是否适合其特定用途的信息。虽然在此处所包含的数据的准备已经采取了合理的预防措施,这是仅为你提供的信息、考虑和调查。这个化学品安全技术说明书为本产品提供了安全操作指南和使用指南，它并不能对所有可能发生的情况提供建议，因此，您特殊使用该产品应先进行评估，以确定是否需要额外的预防措施。

Remark(备注):
Main model（主测型号）: PS7-12(12V7AH), series model（附加型号）: 4V4AH, 4V4.5AH, 4V10AH, 6V1.2AH, 6V1.3AH, 6V2.8AH, 6V3.2AH, 6V3.3AH, 6V4AH, 6V4.5AH, 6V5AH, 6V6AH, 6V7AH, 6V7.5AH, 6V8AH, 6V10AH, 6V12AH, 6V14AH, 12V0.8AH, 12V1.2AH, 12V1.3AH, 12V1.5AH, 12V1.8AH, 12V2AH, 12V2.2AH, 12V2.3AH, 12V2.4AH, 12V2.6AH, 12V2.7AH, 12V2.8AH, 12V2.9AH, 12V3AH, 12V3.2AH, 12V3.3AH, 12V1.4AH, 12V3.8AH, 12V4AH, 12V4.2AH, 12V4.5AH, 12V5AH, 12V5.5AH, 12V6AH, 12V6.5AH, 12V7.2AH, 12V7.5AH, 12V8AH, 12V8.5AH, 12V9AH, 12V10AH, 12V12AH, 12V13AH, 12V14AH, 12V15AH, 12V17AH, 12V18AH, 12V18.5AH, 12V20AH, 12V22AH, 12V24AH, 12V25AH, 12V26AH, 12v28AH, 6V65AH, 6V100AH, 6V150AH, 6V180AH, 6V200AH, 12V33AH, 12V35AH, 12V38AH, 12V40AH, 12V42AH, 12V45AH, 12V50AH, 12V55AH, 12V53AH, 12V65AH, 12V70AH, 12V75AH, 12V80AH, 12V90AH, 12V100AH, 12V110AH, 12V120AH, 12V134AH, 12V150AH, 12V160AH, 12V170AH, 12V180AH, 12V200AH, 12V230AH, 12V250AH, 12V260AH, 2V100AH, 2V150AH, 2V200AH, 2V300AH, 2V350AH, 2V400AH, 2V450AH, 2V500AH, 2V600AH, 2V800AH, 2V1000AH, 2V1200AH, 2V1500AH, 2V2000AH, 2V3000AH, 12V60AH, 12V105AH, 12V125AH, 12V175AH, 12V95AH, 24V3.5AH, 24V4AH, 24V5AH, 24V8AH, 24V14AH, 24V24AH, 24V18AH

声　明
STATEMENT

1. 本次检测所用的测量设备的量值均可以溯源到国家计量标准。

The equipment lists are traceable to the national reference standards.

2. 检测报告未经本实验室书面批准，不得部分复制。

The test report can not be partially copied unless prior written approval is issued from our lab.

3. 检测报告未加盖“检测检测专用章”无效。

The test report is invalid without the "special seal for inspection and testing".

4. 检测报告无批准人员签字无效。

The test report is invalid without the signature of the approver.

5. 本次检测的结果仅对所检测样品有效。

The test process and test result is only related to the Unit Under Test.

6. 样品的相关信息由委托单位提供，实验室不对其真实性负责。

Sample information is provided by the client and the laboratory is not responsible for its authenticity.

7. 无 CMA 标志的检测报告，仅供科研、教学、企业产品研发及内部质量控制目的用。

The test report without CMA mark is only used for scientific research, teaching, enterprise product development and internal quality control purposes.

8. 本实验室的质量体系符合 ISO/IEC17025 标准的要求。

The quality system of our laboratory is in accordance with ISO/IEC17025.

9. 如对本检测报告有异议，可在收到检测报告后 15 天内向本单位申诉，逾期不予受理。

If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

地　址：广东省深圳市宝安区福海街道展城社区福园一路 158 号鹏洲工业园 B 号厂房 1 层 2 层
1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China
电话/TEL：400-788-9558
邮政编码/P.C.: 518103
传真/FAX：0755-33229357
网址/Website：http://www.chnbctc.com
电子信箱/E-Mail：bctc@bctc-lab.com.cn

※※※※※ **结束** ※※※※※

※※※※※ **END** ※※※※※

Manufacturer's or Supplier's Certification for UN 2800 Batteries, wet, non-spillable

concerning the transport according to the dangerous goods regulations of the different transport modes

Battery model name:

VRLA Batteries according to MSDS BCTC2012266457B

The battery is non-spillable because it fulfills[1]

SP 238 a) UN Recommendations on the transport of dangerous goods, as adopted in

SP 238 a) ADR/RID/IMDG CODE; **A67** IATA-DGR:

☒ Vibration test

☒ Pressure differential test

The battery fulfills also[2]

SP 238 b) UN Recommendations on the transport of dangerous goods, as adopted in

SP 238 b) ADR/RID/IMDG CODE; **A67** IATA-DGR:

☒ At a temperature of 55° C the electrolyte will not flow from a ruptured or cracked case and there is no free liquid to flow

Name and address of manufacturer or supplier:

Shenzhen Power Kingdom Co., Ltd.

Rm 7011, East Block Building, City Square, Jiabin Road, Luohu District, Shenzhen, China

Place: Shenzhen Date: 20/7/2021

Responsible Person: Will Loong

Signature:

SHENZHEN POWER KINGDOM CO.

1 Necessary for the classification as UN 2800 Batteries, wet, non-spillable.
Only for road and railway transport: If the conditions of SP 598 are fulfilled, the battery is not subject for the other regulations of ADR/RID.

2 If this condition is also fulfilled: The battery is not subject to the dangerous goods regulations if the terminals are protected from short circuit when packed for transport. For air transport this is only valid, if the battery or the respective equipment is carried as cargo and all additional requirements of A67 are met.
Additional state and operator variations and, if applicable, the provisions for dangerous goods carried by passengers or crew have to be met.
Hint: For air transport the following declaration must be given in the Air Way Bill:
"Not restricted, as per Special Provision A67"

BCTC 倍测检测

M S D S

MATERIAL SAFETY DATA SHEET

Report No.:	BCTC2012266457B
Applicant:	Shenzhen Power Kingdom Co., Ltd
Product Name:	Sealed lead-acid batteries
Product Type:	12V7AH
Issued Date:	2021-01-04
Prepared By:	
Issued By:	

SHENZHEN BCTC TESTING CO.,LTD BCTC APPROVED 倍测检测

Shenzhen BCTC Testing Co., Ltd

** The MSDS is prepared based on the information provided by client. The contents and formats of this MSDS are revised as per client's request.*

Section 1-Chemical Product and Company Identification

Product Name	Sealed lead-acid batteries
Model	12V7AH
Trade Mark	POWER KINGDOM
Ratings	12V, 7Ah
Weight	2kg
Manufacturer	Henan Yuguang Gold&Lead Group Lead Salt Co., Ltd
Manufacturer address	East 680, Jishui Streen, Jiyuan City, Henen
Emergency Telephone	+86-391-6600301
Fax	/

Section 2- Composition Information

Chemical Composition	CAS No.	Weight (%)	Trade Secret
Lead	7439-92-1	30%	*
Calcium alloy	7440-70-2		*
Lead	7439-92-1	24.24%	*
Calcium alloy	7440-70-2		*
ABS	9003-56-9	7%	*
Copper alloy	11114-42-4	1%	*
AGM（Glass, oxide, chemicals）	65997-17-3	3.34%	*
Sulfuric acid	7664-93-9	31.42%	*
GEL (Fumed silica)	-	3%	*

" * " The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 3- Hazards Identification

Emergency overview:	N/A

Classification according to GHS	Not a dangerous substance according to GHS
Label elements:	
Hazard pictogram(s)	Not Available
Signal word	Not Available
Hazard statement(s)	Not Available
Precautionary statement(s):	
Prevention	Not Available
Response	Not Available
Disposal	Not Available
Environmental hazards:	No relevant information
Important symptoms:	See section 11 for more information

Section 4- First Aid Measures

Eye contact	Flush eyes with plenty of water for least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin contact	Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.
Inhalation	Remove from exposure and move to fresh air immediately. Use oxygen if available.
Ingestion	Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.

Section 5- Fire Fighting Measures

Flash Point	N/A
Auto-Ignition Temperature	N/A
Extinguishing Media	H_2O, CO_2
Special Fire-Fighting Procedures	Self-contained breathing apparatus
Unusual Fire and Explosion Hazards	Cell may vent when subjected to excessive heat-exposing battery contents
Hazardous Combustion Products	Carbon monoxide, carbon dioxide, lithium oxide fumes.

Section 6- Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: If the battery is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. The preferred response is to leave the area and allow the vapors to dissipate. Avoid skin and eyes contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerated. If leakage of the battery happens, liquid could be absorbed with sand, earth or other inert substance and contaminated area should be ventilated meantime.
Environment precautions: Do not allow product to reach sewage system or any water source. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers surface or ground water.
Methods and material for containment and cleaning up: If battery casing is dismantled, small amounts of electrolyte may leak. Collect all released material in a plastic lined container. Dispose off according to the local law and rules. Avoid leached substances to get into the earth, canalization or waters.

Section 7- Handling and Storage

Handling	The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.
Storage	Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.
Other Precautions	The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

Section 8- Exposure Controls/Personal Protection

Engineering Controls	Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor. Keep away from heat and open flame. Store in a cool, dry place.
Personal Protective Equipment	Respiratory Protection: Not necessary under normal conditions. Skin and body Protection: Not necessary under normal conditions, Wear suitable protective clothing and gloves if handling an open or leaking battery. Hand protection: Wear suitable gloves if handling an open or leaking battery. Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.
Other Protective Equipment	Have a safety shower and eye wash fountain readily available in the immediate work area.
Hygiene Measures	Do not eat, drink, or smoke in work area. Maintain good housekeeping.

Section 9- Physical and Chemical Properties

Form	Solid
Color	Black
Odour	Not Available
pH	Not Available
Melting point/freezing point	Not Available
Boiling Point and Boiling range	Not Available
Flash Point	Not Available
Upper/lower flammability or explosive limits	Not Available
Vapor Pressure	Not Available
Vapor Density	Not Available
Relative density	Not Available
Solubility in Water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Evaporation rate	Not Available
Flammability (soil, gas)	Not Available
Viscosity	Not Available
Section 10- Stability and reactivity	
Stability	The product is stable under conditions described Section 7
Conditions to Avoid	Heat above 70°C or incinerate. Deform, Mutilate, Crush, Disassemble, Overcharge, Short circuit, Expose over a long period to humid conditions.
Incompatible Materials	Oxidizing agents, acid, base.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, lithium oxide fumes.
Possibility of Hazardous Reaction	Not Available
Section 11 – Toxicological Information	

Irritation	Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur.
Sensitization	Not Available
Neurological Effects	Not Available
Teratogenicity	Not Available
Reproductive Toxicity	Not Available
Mutagenicity (Genetic Effects)	Not Available
Toxicologically Synergistic Materials	Not Available

Section 12- Ecological Information

Ecological Toxicity	Not Available
Mobility in soil	Not Available
Persistence and Degradability	Not Available
Bioaccumulation potential	Not Available
Other Adverse Effects	Not Available

Section 13- Disposal Considerations

Product disposal recommendation	Observe local, state and federal laws and regulations.
Uncleaned packaging recommendation	Disposal must be made according to official regulations

Section 14 – Transport Information

UN Proper shipping name	BATTERIES, WET, NONSPILLABLE,electric storage

Transport information:

This goods shall be considered Not Restricted Goods and need to be complied with the requirements of Packing Instruction 872 of special provision A67 of 62nd DGR Manual of IATA or special provision 238 of IMDG CODE (Amdt. 39-18) or European Agreement Concerning the International Carriage of Dangerous Goods by Road(ADR 2019 Volume I)

The words "Not Restricted" and the Special Provision number must be included in the description of the substance on the Air or Sea Waybill.

Transport Fashion: By air, by sea, by Road.

Section 15- Regulatory information

Law information

《Dangerous Goods Regulations》
《Recommendation on the Transport of Dangerous Goods Model Regulations》
《International Maritime Dangerous Goods》
《Technical Instructions for the Safe Transport of Dangerous Goods》
《Classification and code of dangerous Goods》
《Occupational Safety and Health Act》(OSHA)
《Toxic Substance Control Act》(TSCA)
《Consumer Product Safety Act》(CPSA)
《Federal Environmental Pollution Control Act》(FEPCA)
《The Oil Pollution Act》(OPA)
《Superfund Amendments and Reauthorization Act Title III (302/311/312/313)》(SARA)
《Resource Conservation and Recovery Act》(RCRA)
《Safety Drinking Water Act》(CWA)
《California Proposition 65》
《Code of Federal Regulations》(CFR)
In according with all Federal, State and local laws.

Section 16- Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, concorde makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation. This material safety data sheet provides guidelines for the safe handling and use of this product; it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required.

Remark:

Main model: 12V7AH, series model: 4V4AH, 4V4.5AH, 4V10AH, 6V1.2AH, 6V1.3AH, 6V2.8AH, 6V3.2AH, 6V4AH, 6V4.5AH, 6V5AH, 6V6AH, 6V7AH, 6V7.5AH, 6V8AH, 6V10AH, 6V12AH, 6V14AH, 24V3.5AH, 24V4AH, 24V5AH, 12V0.8AH, 12V1.2AH, 12V1.3AH, 12V1.5AH, 12V1.8AH, 12V2AH, 12V2.2AH,12V2.3AH, 12V2.6AH, 12V2.7AH, 12V2.8AH, 12V2.9AH, 12V3AH, 12V3.2AH, 12V3.8AH, 12V4AH, 12V4.2AH, 12V4.5AH, 12V5AH, 12V5.5AH, 12V6AH, 12V6.5AH, 12V7AH, 12V7.2AH, 12V7.5AH, 12V8AH, 12V8.5AH, 12V9AH, 12V10AH, 12V12AH, 12V13AH, 12V14AH, 12V15AH, 12V17AH, 12V18AH, 12V18.5AH, 12V20AH, 12V22AH, 12V24AH, 12V25AH, 12V26AH, 12V28AH, 6V65AH, 6V100AH, 6V150AH, 6V180AH, 6V200AH, 12V33AH, 12V35AH, 12V38AH, 12V40AH, 12V42AH, 12V45AH, 12V50AH, 12V55AH, 12V53AH, 12V65AH, 12V70AH, 12V75AH, 12V80AH, 12V90AH, 12V100AH, 12V110AH, 12V120AH, 12V134AH, 12V150AH, 12V160AH, 12V170AH, 12V180AH, 12V200AH, 12V230AH, 12V250AH, 12V260AH, 2V100AH, 2V150AH, 2V200AH, 2V300AH, 2V350AH, 2V400AH, 2V450AH, 2V500AH, 2V600AH, 2V800AH, 2V1000AH, 2V1200AH, 2V1500AH, 2V2000AH, 2V3000AH, 24V8AH, 24V14AH, 12V60AH, 12V105AH, 12V125AH, 12V175AH, 6V3.3AH, 12V3.3AH, 12V1.4AH, 12V95AH, 4V4AH, 4V4.5AH, 4V10AH, 6V1.2AH, 6V1.3AH, 6V2.8AH, 6V3.2AH, 6V4AH, 6V4.5AH, 6V5AH, 6V6AH, 6V7AH, 6V7.5AH, 6V8AH, 6V10AH, 6V12AH, 6V14AH, 24V3.5AH, 24V4AH, 24V5AH, 12V0.8AH, 12V1.2AH, 12V1.3AH, 12V1.5AH, 12V1.8AH, 12V2AH, 12V2.2AH, 12V2.3AH, 12V2.6AH, 12V2.7AH, 12V2.8AH, 12V2.9AH, 12V3AH, 12V3.2AH, 12V3.8AH, 12V4AH, 12V4.2AH, 12V4.5AH, 12V5AH, 12V5.5AH, 12V6AH, 12V6.5AH, 12V7.2AH, 12V7.5AH, 12V8AH, 12V8.5AH, 12V9AH, 12V10AH, 12V12AH, 12V13AH, 12V14AH, 12V15AH, 12V17AH, 12V18AH, 12V18.5AH, 12V20AH, 12V22AH, 12V24AH, 12V25AH, 12V26AH, 12v28AH, 6V65AH, 6V100AH, 6V150AH, 6V180AH, 6V200AH, 12V33AH, 12V35AH, 12V38AH, 12V40AH, 12V42AH, 12V45AH, 12V50AH, 12V55AH, 12V53AH, 12V65AH, 12V70AH, 12V75AH, 12V80AH, 12V90AH, 12V100AH, 12V110AH, 12V120AH, 12V134AH, 12V150AH, 12V160AH, 12V170AH, 12V180AH, 12V200AH, 12V230AH, 12V250AH, 12V260AH, 2V100AH, 2V150AH, 2V200AH, 2V300AH, 2V350AH, 2V400AH, 2V450AH, 2V500AH, 2V600AH, 2V800AH, 2V1000AH, 2V1200AH, 2V1500AH, 2V2000AH, 2V3000AH, 24V8AH, 24V14AH, 12V60AH, 12V105AH, 12V125AH, 12V175AH, 6V3.3AH, 12V3.3AH, 12V1.4AH, 12V95AH, 12V 2.4AH

STATEMENT

1.The equipment lists are traceable to the national reference standards.

2.The test report can not be partially copied unless prior written approval is issued from our lab.

3.The test report is invalid without stamp of laboratory.

4.The test report is invalid without signature of person(s) testing and authorizing.

5.The test process and test result is only related to the Unit Under Test.

6.The quality system of our laboratory is in accordance with ISO/IEC17025.

7.If there is any objection to report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Tangwei, Fuhai

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E-Mail : bctc@bctc-lab.com.cn

※※※※※ **END** ※※※※※