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FOLLOW-UP SERVICE PROCEDURE
(TYPE R)

COMPONENT - BATTERIES, STANDBY
(BAZR2)

Manufacturer: FUJIAN MINHUA POWER SOURCE CO LTD
(100520-180) LONGQIAO INDUSTRIAL GARDEN
ANXI ECONOMIC DEVELOPMENT ZONE
QUANZHOU
FUJIAN 361012 CHINA

Applicant: SAME AS MANUFACTURER
(100520-180)

Recognized Company: SAME AS MANUFACTURER
(100520-180)

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Underwriters Laboratories Inc.

Stephen Hewson
Senior Vice President
Global Follow-Up Service Operations

William R. Carney
Director
North American Certification Program

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REPORT

On

COMPONENT - Batteries, Standby

FUJIAN MINHUA POWER SOURCE CO.,LTD.

FUJIAN, CHINA

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DESCRIPTION

PRODUCT COVERED:

Component - Sealed cell, rechargeable lead-acid batteries, Models MS1.2-6, MS1.3-6, MS2.8-6, MS3.2-6, MS4-6, MS4.5-6, MS5-6, MS7-6, MS10-6, MS12-6, MS14-6, MS0.7-12, MS0.8-12, MS1.2-12, MS1.3-12, MS1.9-12, MS2.3-12, MS3.2-12, MS4-12, MS4.5-12, MS5-12, MS7-12, MS7.2-12, MS7.5-12, MS9-12, MS10-12, MS12-12, MS17-12, MS18-12, MS24-12, MS25-12, MS28-12, MM33-12, MM38-12, MM40-12, MM45-12, MM55-12, MM60-12, MM75-12, MM65-12, MM80-12, MM100-12, MM120-12, MM134-12, MM150-12, MM200-12, MR55-12, MR75-12, MR100-12 and MR150-12.

ELECTRICAL RATINGS:

Model	Nominal Voltage, V	Manufacturer's Capacity Ah
MS1.2-6	6	1.2
MS1.3-6	6	1.3
MS2.8-6	6	2.8
MS3.2-6	6	3.2
MS4-6	6	4
MS4.5-6	6	4.5
MS5-6	6	5
MS7-6	6	7
MS10-6	6	10
MS12-6	6	12
MS14-6	6	14
MS0.7-12	12	0.7
MS0.8-12	12	0.8
MS1.2-12	12	1.2
MS1.3-12	12	1.3
MS1.9-12	12	1.9
MS2.3-12	12	2.3
MS3.2-12	12	3.2
MS4-12	12	4
MS4.5-12	12	4.5
MS5-12	12	5
MS7-12	12	7
MS7.2-12	12	7.2
MS7.5-12	12	7.5
MS9-12	12	9
MS10-12	12	10
MS12-12	12	12
MS17-12	12	17
MS18-12	12	18
MS24-12	12	24

Model	Nominal Voltage, V	Manufacturer's Capacity Ah
MS25-12	12	24
MS28-12	12	28
MM33-12	12	33
MM38-12	12	38
MM40-12	12	40
MM45-12	12	45
MM55-12	12	55
MM60-12	12	60
MM75-12	12	75
MM65-12	12	65
MM80-12	12	80
MM100-12	12	100
MM120-12	12	120
MM134-12	12	134
MM150-12	12	150
MM200-12	12	200
MR55-12	12	55
MR75-12	12	75
MR100-12	12	100
MR150-12	12	150

GENERAL DESCRIPTION

These rechargeable lead-acid batteries are provided with one pressure release vent per cell, designed to prevent excessive accumulations of gas pressure and battery/cell rupture.

Material Modification - There shall be no changes in the formulation or composition of any of the materials used in the construction of the batteries or relief vents unless previously cleared through Underwriters Laboratories Inc.

TECHNICAL CONSIDERATION (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - The use of these devices may be considered acceptable under the following conditions:

1. These batteries in combination with their pressure release vents have been found to comply with the requirements of the pressure release test in the Standard for Standby Batteries, UL 1989, third edition, dated 2006-12-28. No other performance related tests have been conducted on these batteries.
2. The capacity under Electrical Ratings was assigned by the manufacturer and has not been evaluated.
3. The need for additional testing shall be determined in the end use application.
4. For material of ZHENJIANG GPPC CHEMICAL CO LTD (E206417), Type D-1000 or D-120, the battery enclosure of all Models are classed as HB flame rating. The batteries may not be appropriate for use in a UPS application. The suitability of the flame rating and the need for an enclosure shall be determined in the end-use application.
5. The suitability of the terminals and electrical connections shall be considered in the end use product.

RECHARGEABLE LEAD-ACID BATTERY, MODEL
MODEL MS14-6 - FIG. 1
MODEL MS-1.2-6 - FIG. 2
(REPRESENTS MODELS IN TABLE A)

Battery Case and Cover - R/C (QMFZ2), ZHENJIANG GPPC CHEMICAL CO LTD (E206417), Type D-1000, rated V-0, 60°C, minimum 1.5 mm thick for case and cover, case and cover secured by ultrasonic welding or epoxy, refer to Table A for overall dimensions and minimum thickness.

Alternate - same as above except that ZHENJIANG GPPC CHEMICAL CO LTD (E206417), Type D-120, rated HB, 60°C, minimum 1.5 mm thick for case and cover

Cells - Each nominal 2 V, lead-acid type.

Terminals - Positive and negative, plate type. Each plate formed of Pb alloy, potted with epoxy at plate exit.

Alternate - Same as above except tab type.

Separator - Micro glass-fiber.

Electrolyte - Immobilized dilute sulfuric acid.

Pressure Release Vent - One vent per cell, constructed as follows.

- A. Vent Body - Integrally molded in top half of battery case, refer to Table B for dimensions of vent.
- B. Vent Cap - Molded of natural rubber.

Markings - See Sec. Gen.

TABLE A

OVERALL AND VENT DIMENSIONS OF BATTERIES

Battery Model Designation	Overall Dimensions, mm			Case Min. Wall Thickness, mm		Minimum Wall Thickness		Vent Designation Type
	Length	Width	Height	Bottom	Sides	Cell	Vent	
						Cover, mm	Cover, mm	
MS1.2-6	97	24	52	2.2	2.2	15	1.5	ABS
MS1.3-6	97	24	52	2.2	2.2	15	1.5	ABS
MS2.8-6	66	33	97	2.2	2.2	15	1.5	ABS
MS3.2-6	134	35	61	2.2	2.2	15	1.5	ABS
MS4-6	70	47	101	2.2	2.2	15	1.7	ABS
MS4.5-6	70	47	101	2.2	2.2	15	1.5	ABS
MS5-6	70	47	101	2.2	2.2	15	1.5	ABS
MS7-6	151	34	94	2.2	2.2	15	1.5	ABS
MS10-6	151	50	94	2.2	2.2	15	1.5	ABS
MS12-6	151	50	94	2.2	2.2	15	1.5	ABS
MS14-6	108	71	140	2.2	2.2	15	1.5	ABS
MS0.7-12	96	25	62	2.2	2.2	15	1.5	ABS
MS0.8-12	96	25	62	2.2	2.2	15	1.5	ABS
MS1.2-12	97	43	52	2.2	2.2	15	1.5	ABS
MS1.3-12	97	43	52	2.2	2.2	15	1.5	ABS
MS1.9-12	178	35	61	2.2	2.2	15	1.5	ABS
MS2.3-12	178	35	61	2.2	2.2	14	1.5	ABS
MS3.2-12	134	67	61	2.2	2.2	14	1.5	ABS
MS4-12	90	70	101	2.2	2.2	14	1.5	ABS
MS4.5-12	90	70	101	2.2	2.2	14	1.5	ABS
MS5-12	90	70	101	2.2	2.2	14	1.5	ABS
MS7-12	151	65	94	2.2	2.2	14	1.5	ABS
MS7.2-12	151	65	94	2.2	2.2	14	1.7	ABS
MS7.5-12	151	65	94	2.2	2.2	14	1.7	ABS
MS9-12	151	65	94	2.2	2.2	14	1.7	ABS
MS10-12	151	98	95	2.2	2.2	14	1.7	ABS
MS12-12	151	98	95	2.2	2.2	12	1.5	ABS
MS17-12	181	77	167	2.2	2.2	25.7	1.7	ABS
MS18-12	181	77	167	2.2	2.2	25.7	1.7	ABS
MS24-12	166	175	125	2.2	2.2	25	1.7	ABS
MS25-12	165	125	175	2.2	2.2	25	1.7	ABS
MS28-12	166	175	125	4.3	4.3	25	1.7	ABS
MM33-12	195	130	155	4.3	4.3	30	1.7	ABS
MM38-12	197	165	170	4.3	4.3	31	2.6	ABS
MM40-12	197	165	170	4.3	4.3	31	2.6	ABS
MM45-12	197	165	170	4.3	4.3	24.7	2.6	ABS
MM55-12	229	139	209	4.3	4.3	24.7	2.6	ABS
MM60-12	260	168	211	4.3	4.3	39.4	2.6	ABS
MM75-12	260	168	211	4.3	4.3	35.2	2.6	ABS
MM65-12	350	167	179	4.3	4.3	39.4	2.6	ABS

TABLE A

OVERALL AND VENT DIMENSIONS OF BATTERIES

Battery Model Designation	Overall Dimensions, mm			Case Min. Wall Thickness, mm		Minimum Wall Thickness		Vent Designation Type
	Length	Width	Height	Bottom	Sides	Cell	Vent	
						Cover, mm	Cover, mm	
MM80-12	350	167	179	4.3	4.3	35.2	2.6	ABS
MM100-12	331	173	213	4.3	4.3	34.5	2.6	ABS
MM120-12	409	176	225	4.3	4.3	29.7	2.6	ABS
MM134-12	342	172	280	4.3	4.3	34	2.6	ABS
MM150-12	485	172	240	4.3	4.3	34	2.6	ABS
MM200-12	522	238	218	4.3	4.3	35	2.6	ABS
MR55-12	277	106	222	4.3	4.3	24.7	2.6	ABS
MR75-12	562	114	188	4.3	4.3	35.2	2.6	ABS
MR100-12	394	109	285	4.3	4.3	34.5	2.6	ABS
MR150-12	551	109	287	4.3	4.3	34	2.6	ABS

Table B

VENT DIMENSIONS OF BATTERIES

Battery Model No.	Vent Dimension, mm	
	ID, mm	Height, mm
MS1.2-6	5.7	6.5
MS1.3-6	5.7	6.5
MS2.8-6	5.7	6.5
MS3.2-6	5.7	6.5
MS4-6	5.7	6.5
MS4.5-6	5.7	6.5
MS5-6	5.7	6.5
MS7-6	5.7	6.5
MS10-6	5.7	6.5
MS12-6	5.7	6.5
MS14-6	5.7	6.5
MS0.7-12	5.7	6.5
MS0.8-12	5.7	6.5
MS1.2-12	5.7	6.5
MS1.3-12	5.7	6.5
MS1.9-12	5.7	6.5
MS2.3-12	5.7	6.5
MS3.2-12	5.7	6.5
MS4-12	5.7	6.5
MS4.5-12	5.7	6.5
MS5-12	5.7	6.5
MS7-12	5.7	6.5
MS7.2-12	5.7	6.5
MS7.5-12	5.7	6.5
MS9-12	5.7	6.5
MS10-12	5.7	6.5
MS12-12	5.7	6.5
MS17-12	5.7	6.5
MS18-12	5.7	6.5
MS24-12	5.7	6.5
MS25-12	5.7	5.2
MS28-12	5.7	5.2
MM33-12	8.2	5.2
MM38-12	8.2	5.2
MM40-12	8.2	5.2
MM45-12	8.2	5.2
MM55-12	8.2	5.2
MM60-12	8.2	5.2
MM75-12	8.2	5.2
MM65-12	8.2	5.2

Table B cont'd

Battery Model No.	Vent Dimension, mm	
	ID, mm	Height, mm
MM80-12	8.2	5.2
MM100-12	8.2	5.2
MM120-12	8.2	5.2
MM134-12	8.2	5.2
MM150-12	8.2	5.2
MM200-12	8.2	5.2
MR55-12	8.2	5.2
MR75-12	8.2	5.2
MR100-12	8.2	5.2
MR150-12	8.2	5.2