

# EMC Evaluation Report

Applicant: MASTER BATTERY, S.L.

Product: Energy Storage System

Model: MF-GREENE-3.68K, MF-GREENE-5K, MF-GREENE-BAT, (Refer to section 1.4 'Product Information' for details)

In accordance with EN IEC 61000-6-1, EN IEC 61000-6-3, EN IEC 61000-6-2, EN IEC 61000-6-4, EN IEC 61000-3-11, EN 61000-3-12

Prepared for: MASTER BATTERY, S.L.

PASEO DE EXTREMADURA, 39, 28935 MOSTOLES, SPAIN



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## COMMERCIAL-IN-CONFIDENCE

Report Number: 68.772.22.0002.02L

RESPONSIBLE FOR	NAME	SIGNATURE	DATE
Prepared by	Dawi Xu		2023-04-25
Approved by	Jessie He		2023-04-25

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD Product Service control rules.

### EXECUTIVE SUMMARY

A sample of this product was tested and found to be in compliance with EN IEC 61000-6-1:2019, EN IEC 61000-6-3:2021, EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019, EN IEC 61000-3-11:2019 and EN 61000-3-12:2011.

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## Contents

<b>1</b>	<b>Report Summary .....</b>	<b>3</b>
1.1	Report Modification Record.....	3
1.2	Introduction.....	3
1.3	General Remarks .....	3
1.4	Product information .....	5

# 1 Report Summary

## 1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Issue	Description of Change	Date of Issue
1	First Issue	2023-04-25

## 1.2 Introduction

The information contained in this report is intended to show verification of the EMC Qualification

Applicant	: MASTER BATTERY, S.L.
Address	: PASEO DE EXTREMADURA, 39, 28935 MOSTOLES, SPAIN
Manufacturer	: Same as applicant
Address	: Same as applicant
Model Number(s)	: Refer to section 1.4 'Product Information' for details
Product Type	: Energy Storage System

## 1.3 General Remarks

This report is based on the report 68.772.22.0022.02 with following changes:

- The Certificate Holder and model number were changed. The new models are identical to original models except their model names. The model list is described in the follow table, so the original test results are still valid, no additional test was needed. Please refer to reports 68.772.22.0022.02 and 6877221004401 for complete information.

Main Certificate Model	Co-license Model
Energy Storage System	
BluE H3-5	MF-GREEN H3-5
BluE H3-10	MF-GREEN H3-10
BluE H3-15	MF-GREEN H3-15
BluE H3-20	MF-GREEN H3-20
BluE H3-25	MF-GREEN H3-25
BluE H5-5	MF-GREEN H5-5
BluE H5-10	MF-GREEN H5-10
BluE H5-15	MF-GREEN H5-15
BluE H5-20	MF-GREEN H5-20
BluE H5-25	MF-GREEN H5-25
BluE H6-10	MF-GREEN H6-10
BluE H6-15	MF-GREEN H6-15
BluE H6-20	MF-GREEN H6-20
BluE H6-25	MF-GREEN H6-25



Main Certificate Model	Co-license Model
Hybrid Inverter	
BluE-S 3680D-M1	MF-GREENE-3.68K
BluE-S 5000D-M1	MF-GREENE-5K
BluE-S 6000D-M1	MF-GREENE-6K

Main Certificate Model	Co-license Model
Battery Pack	
BluE-PACK-5.1-16S-100A-N	MF-GREENE-BAT
BluE-PACK-10.2-16S-100A-N	MF-GREENE-BAT-10.2-16S-100A-N
BluE-PACK-15.3-16S-100A-N	MF-GREENE-BAT-15.3-16S-100A-N
BluE-PACK-20.4-16S-100A-N	MF-GREENE-BAT-20.4-16S-100A-N
BluE-PACK-25.5-16S-100A-N	MF-GREENE-BAT-25.5-16S-100A-N

## 1.4 Product information

### General Product Information:

Energy Storage System					
Model	MF-GREEN H3-5	MF-GREEN H3-10	MF-GREEN H3-15	MF-GREEN H3-20	MF-GREEN H3-25
Rated Output Power	3680W				
Maximum AC Input Power	7360VA				
Maximum PV Input Power	4800W				
IP Protection	IP65				
Dimensions(W*D*H)	540mm x 240mm x 890mm	540mm x 240mm x 1600mm	1080mm x 240mm x 1600mm	1080mm x 240mm x 1600mm	1080mm x 240mm x 1600mm
Weight	86kg	140kg	194kg	248kg	322kg
Operating Temperature Range	-10°C~+50°C				
Storage Temperature	-20°C~+50°C				
Relative humidity	0% ~ 90%				
Max.Operating Altitude	≤ 2000m				
Hybrid Inverter					
Model	MF-GREENE-3.68K				
Max.PV input voltage	580Vdc				
Max.PV input current	15Ad.c.x2				
MPPT voltage range	80~560Vd.c.				
Nominal AC input current(on-grid)	32A				
Nominal AC output apparent power(on-grid)	3680W				
Nominal AC output power(back-up)	3680W/4000VA				
Nominal AC output current(back-up)	16A				
Battery Voltage Range	40-60Vdc				
Phase	Single				
Power Factor Range	0.8 leading ~0.8 lagging (0.95 leading ~0.95 lagging for Germany)				
Maximum Charge/Discharge Current	50Ad.c./80Ad.c.				
Maximum Charge/Discharge Power	3000W/4000W				
Grid terminal parameter					
Rated voltage	230Va.c.				
Rated frequency	50/60Hz				
Rated input Current	31Aa.c.				
Maximum continuous input current	32Aa.c.				
Maximum continuous input power	7360VA				



<b>Energy Storage System</b>					
Model	MF-GREEN H5-5	MF-GREEN H5-10	MF-GREEN H5-15	MF-GREEN H5-20	MF-GREEN H5-25
Rated Output Power	5000W				
Maximum AC Input Power	7360VA				
Maximum PV Input Power	6500W				
IP Protection	IP65				
Dimensions(W*D*H)	540mm x 240mm x 890mm	540mm x 240mm x 1600mm	1080mm x 240mm x 1600mm	1080mm x 240mm x 1600mm	1080mm x 240mm x 1600mm
Weight	86kg	140kg	194kg	248kg	322kg
Operating Temperature Range	-10°C~+50°C				
Storage Temperature	-20°C~+50°C				
Relative humidity	0% ~ 90%				
Max.Operating Altitude	≤ 2000m				
<b>Hybrid Inverter</b>					
Model	MF-GREENE-5K				
Max.PV input voltage	580Vdc				
Max.PV input current	15Ad.c.x2				
MPPT voltage range	80~560Vd.c.				
Nominal AC input current(on-grid)	32A				
Nominal AC output apparent power(on-grid)	5000W				
Nominal AC output power(back-up)	4600W/5000VA				
Nominal AC output current(back-up)	20A				
Battery Voltage Range	40-60Vdc				
Phase	Single				
Power Factor Range	0.8 leading ~0.8 lagging (0.95 leading ~0.95 lagging for Germany)				
Maximum Charge/Discharge Current	100Ad.c./100Ad.c.				
Maximum Charge/Discharge Power	4600W/5000W				
<b>Grid terminal parameter</b>					
Rated voltage	230Va.c.				
Rated frequency	50/60Hz				
Rated input Current	31Aa.c.				
Maximum continuous input current	32Aa.c.				
Maximum continuous input power	7360VA				



<b>Energy Storage System</b>				
Model	MF-GREEN H6-10	MF-GREEN H6-15	MF-GREEN H6-20	MF-GREEN H6-25
Rated Output Power	6000W			
Maximum AC Input Power	7360VA			
Maximum PV Input Power	7500W			
IP Protection	IP65			
Dimensions(W*D*H)	540mm x 240mm x 1600mm	1080mm x 240mm x 1600mm	1080mm x 240mm x 1600mm	1080mm x 240mm x 1600mm
Weight	140kg	194kg	248kg	322kg
Operating Temperature Range	-10°C~+50°C			
Storage Temperature	-20°C~+50°C			
Relative humidity	0% ~ 90%			
Max.Operating Altitude	≤ 2000m			
<b>Hybrid Inverter</b>				
Model	MF-GREENE-6K			
Max.PV input voltage	580Vdc			
Max.PV input current	15Ad.c.x2			
MPPT voltage range	80~560Vd.c			
Nominal AC input current(on-grid)	32A			
Nominal AC output apparent power(on-grid)	6000W			
Nominal AC output power(back-up)	4600W/5000VA			
Nominal AC output current(back-up)	20A			
Battery Voltage Range	40-60Vdc			
Phase	Single			
Power Factor Range	0.8 leading ~0.8 lagging (0.95 leading ~0.95 lagging for Germany)			
Maximum Charge/Discharge Current	100Ad.c./100Ad.c.			
Maximum Charge/Discharge Power	4600W/5000W			
<b>Grid terminal parameter</b>				
Rated voltage	230Va.c.			
Rated frequency	50/60Hz			
Rated input Current	31Aa.c.			
Maximum continuous input current	32Aa.c.			
Maximum continuous input power	7360VA			



<b>Battery Pack</b>					
Model	MF-GREENE-BAT	MF-GREENE-BAT-10.2-16S-100A-N	MF-GREENE-BAT-15.3-16S-100A-N	MF-GREENE-BAT-20.4-16S-100A-N	MF-GREENE-BAT-25.5-16S-100A-N
Battery type	LFP (LiFePO4)				
Voltage range	44.8~56.5 Vd.c.				
Rated voltage	51.2Vd.c.				
Energy capacity	5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh
Usable capacity	4.6kWh	9.2kWh	13.8kWh	18.4kWh	23kWh
Maximum charge/discharge current	50Ad.c. /80Ad.c.	100Ad.c. /100Ad.c	100Ad.c. /100Ad.c	100Ad.c. /100Ad.c	100Ad.c. /100Ad.c
Maximum charge power	2.825kW	5.65kW	5.65kW	5.65kW	5.65kW
Maximum discharge power	4.096kW	5.12kW	5.12kW	5.12kW	5.12kW
Protective class	Class I				
Ingress protection	IP65				
Altitude	≤ 2000m				

END OF TEST REPORT