

## Report No.: GZES190802190832 Date: 2020-01-09

Applicant:	Zhengzhou F-wheel Industrial Co., Ltd. Lianyun Road 27 District No. 123 Huanghe Science and Technology College science and Technology Park (South) B, Zhengzhou, Henan, China
Manufacturer:	Same as applicant
Manufacturing location:	Same as applicant
Testing location/address:	SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch. 198 Kezhu Road, Science City, Economic & Technology Development Area, Guangzhou, Guangdong, China
The standards:	EN 15194: 2017 (Sub-clauses 4.2.3 and 4.2.4)
Test item description:	Electric Bike
Model/Type reference:	D2+, D3+
Ratings:	36 V ====
Test result:	In the opinion of SGS – CSTC the presented appliance was found to be <b>in compliance with</b> the sub-clauses 4.2.3 and 4.2.4 of standard EN 15194: 2017 as indicated on the following pages.
Remark:	The sub-clauses were requested by the client. The following sample was submitted and identified on behalf of the client.

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Reviewer E&E Safety Laboratory

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Zach Lu Project Engineer





Copy of marking plate							
Summary of testing: After reviewed, appliance with alternative battery charge	er was subjected to tests of clause 4.2.3 and 4.2.4.						
This report is not valid without the original test repo	ort Ref. No. GZES190802190831, dated 2019-10-30.						
EN 15194: 2017							
Test item particulars	-						
Classification of installation and use	Portable appliance						
Supply connection	_						
Possible test case verdicts:							
- test case does not apply to the test object	N/A						
- test object does meet the requirement	P (Pass)						
- test object does not meet the requirement	F (Fail)						
Testing							
Date of receipt of test item	2019-12-30						
Date (s) of performance of tests	2019-12-30 to 2020-01-03						
General product information:							
The appliance for household and similar purposes used.							
Models D2+ and D3+ are identical except for model name and wheel size. These models have the same construction, circuits designed and electrical components.							
Amendment 1:							
The original test report Ref. No. GZES190802190831, dated 2019-10-30, were amended on 2020-01-09 to include the following additions and changes, which were considered technical modifications:							
1. Added the alternative battery charger for all models.							
For necessary tests, refer to "Summary of testing"							





# Report No.: GZES190802190832 Date: 2020-01-09

EN 15194: 2017				
Clause	Requirement + Test	Result - Remark	Verdict	
4.2.3	Batteries		—	
4.2.3.1	Requirements		—	
	a) The EPAC and batteries pack shall be designed in order to avoid risk of fire and mechanical deterioration resulting from abnormal use. Compliance is checked by the test described in 4.2.3.2.		P	
	b) During the test the EPAC and the batteries shall not emit flames, molten metal or poisonous ignitable gas in hazardous amounts and any enclosure shall show no damage that could impair compliance with this European Standard. Safety and compatibility of the battery/charger combination shall be ensured, according to the manufacturer's specifications.		Р	
	c) The battery terminals shall be protected against creating an accidental short circuit.		Р	
	d) An appropriate care shall be taken to ensure that the batteries are protected against overcharging. An appropriate overheating and short circuit protection device shall be fitted.		Р	
	Batteries and the charger unit shall be labelled in order to be able to check their compatibility.		Р	
4.2.3.2	Test method		_	
	Compliance with 4.2.3.1 a) is verified by the following test:		Р	
	a) Battery terminals are short-circuited with the batteries in a fully charged condition.		Р	
	b) Motor terminals are short-circuited; all commands are in "ON" position, while the batteries are fully charged.		Р	
	c) The EPAC is operated with the electric motor or drive system blocked until the motor torque stops or the battery is fully discharged.		Р	
	d) The battery is charged for double the recommended charging period or for 24 h whichever is greater.	24 hours	Р	
4.2.4	Battery charger		_	





# Report No.: GZES190802190832 Date: 2020-01-09

EN 15194: 2017				
Clause	Requirement + Test	Result - Remark	Verdict	
	Chargers for EPAC are considered to be operated in a residential (household) environment.	Approved with battery charger	Р	



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#### Appendix 1: Photo



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