Product: Electric bicycle

MODEL :

ENGINE X

According to

EN 15194:2017

Presented by

Shenzhen Big Fish Sports Technology Co . , LTD.

Jiangnan Building, No.21 ,East Yongxiang Road, Ma'an tang Community,Bantian Street,Longgang District ,Shenzhen, China.

Technical File No.	Issue Date	Prepared by	Approved by
BSTXD2206102185 0301SR	2022-06-10		

EC DECLARE OF THE CONFORMITY

CE

1. The name and address of factory/applicant:

Shenzhen Big Fish Sports Technology Co . , LTD.
Jiangnan Building ,No.21，East Yongxiang Road, Ma′an tang Community, Bantian Street, Longgang District，Shenzhen, China.

2. description of the product

Name：	Electric bicycle
Model/type	ENGINE X
Serial number:	
Dimension：	L1700mm *W580mm *H1300mm
Motor power：	624Wh
Rate voltage:	48V
Produce Year:	22

3. Harmonized standard applied

Harmonized standard applied:
EN 15194:2017

Copy of marking plate

Electric Bicycle
Model:ENGINE X
Rated voltage: 48VDC 624Wh

Shenzhen Big Fish Sports Technology Co . , LTD
MADE IN CHINA

Yotsuba Moto

All models rating label are in the same design except for type designation. Above label was shown for representing the others models.

EN 15194:2017			
Clause	Requirement + Test	Result - Remark	Verdict
4.1	General		—
	Electrically power-assisted bicycles shall comply with Clause 4, 5 and 6 of the European Standard EN 15194:2017 in addition to the specific requirements in Clause 4.2 of this standard.		Not check
4.2	EPAC specific additional requirements		—
4.2.1	Electric circuit		—
	The electrical control system shall be designed so that, should it malfunction in a hazardous manner, it shall switch off power to the electric motor.		p
	If symbols are used, their meaning shall be described in the instructions for use. Their function is one described in ISO 2575; their design shall be in accordance to that standard.		p
4.2.2	Batteries		
4.2.2.1	Requirements		—
	EPAC and pack of batteries shall be designed in order to avoid risk of fire, mechanical deterioration resulting from abnormal use. Compliance is checked by the test described in 4.2.2.2.		p
	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.		P
	Safety and compatibility of the combination battery/charger combination shall be ensured, according to the manufacturer's specifications.		P
	The battery terminals shall be protected against creating an accidental short circuit. Care shall be taken to ensure that the batteries are protected against overcharging. An appropriate overheating and short circuit protection device shall be fitted.		P
	Batteries and the charger unit shall be labeled in order to be able to check their compatibility.		P
4.2.2.2	Test method		—
	1) Battery terminals are short-circuited with the batteries in a fully charged condition.		p
	2) Motor terminals are short-circuited; all commands are in ON position, whilst the batteries are fully charged.		p
	3) The EPAC is operated with the electric motor or drive system dup so as to fully discharge the battery or until the system stops.		P
	4) The battery is charged for double the recommended charging period or for 24 hours depending upon which is the longest period		P
4.2.3	Electric cables and connections		—
4.2.3.1	Requirements		—
	Cable and plug temperature shall be lower than that specified by the manufacturer of the cables and plugs there shall be no corrosion on plug pins and no damage to cable and plug insulation		p

EN 15194:2017			
Clause	Requirement + Test	Result - Remark	Verdict
4.2.3.2	Test method		—
	In consideration of the motor , controller or battery control panel, discharge the fully charged EPAC battery to the allowable discharge limit of the system specified by the EPAC or ESA manufacturer and record it.		p
	Measure the cable and plug temperatures and ensure, by examination, that there is no deterioration of the insulation on either assembly.		p
4.2.3.3	Wiring		—
	a) Wire ways shall be smooth and free from sharp edges.		p
	b) Wires shall be protected so that they do not come into contact with burrs, cooling fins or similar sharp edges that may cause damage to their insulation. Holes in metal through which insulated wires pass shall have smooth well-rounded surfaces or be provided with		p
	c) Wiring shall be effectively prevented from coming into contact with moving parts.		p
	Separate parts of the EPAC that can move in normal use or during user maintenance relative to each other, shall not cause Undue stress to electrical connections and internal conductors, including those providing earthing continuity.		p
	Compliance with a), b), c) shall be checked by inspection.		—
	d) If an open coil spring is used, it shall be correctly installed and insulated. Flexible metallic tubes shall not cause damage insulation of the conductors contained within them.		p
	Compliance with d) shall be checked by inspection and by the following test method.		
	If flexing occurs in normal use, the appliance is placed in its normal operational position and is supplied at rated voltage under normal operation.		P
	e) The movable part is moved backwards and forwards, so that the conductor is flexed through the largest angle permitted by its construction.		P
	For conductors that are flexed in normal use, flex movable part for 10 000 cycles at a test frequency of 0, 5 Hz.	10 000 cycles; 0,5 Hz	P
	For conductors that are flexed during user maintenance, flex the movable part for 100 cycles at the same frequency at (20 ± 5) °C.	100 cycles; 0,5 Hz, 20P	P
	The wiring and its connections shall withstand the electrical strength test. The test voltage expressed in V shall be equal to (500 + 2 x Vr) for 2 min and applied between live parts and other metal parts only.	572V; 2 min	P
	f) The insulation of internal wiring shall withstand the electrical stress likely to occur in normal use.		P
	g) In case of integrated battery charger, electric safety of battery charger applies.	Separated certified battery charger	N/A
4.2.3.4	Power cables and conduits		—

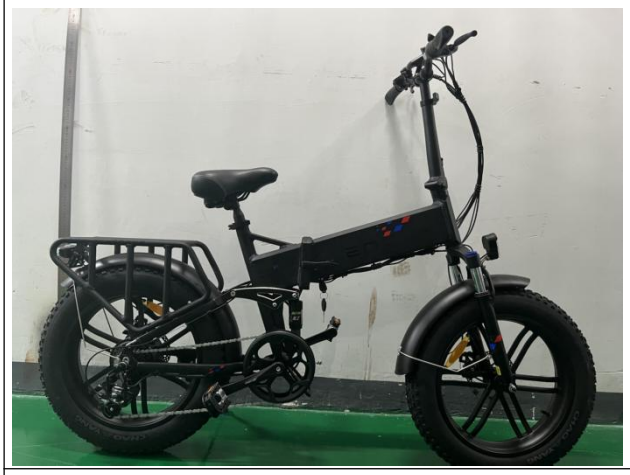
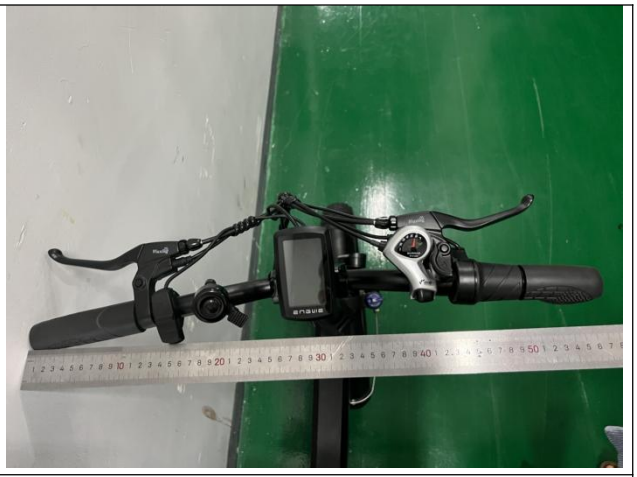
EN 15194:2017			
Clause	Requirement + Test	Result - Remark	Verdict
	Conduit entries, cable entries and knock-outs shall be constructed or located so that the introduction of the conduit or cable does not reduce the protection measures adopted by the manufacturer.		p
	Compliance is checked by inspection.		p
4.2.3.5	External and internal electrical connections		—
	Electrical connection shall comply with IEC 60364-5-52:2001 Clauses 526.1 and 526.2.		p
4.2.3.6	Moisture resistance		—
	The EPAC are subjected to the test of IEC 60529 as follows: IPX4 appliances as described in Clause 14.2.4.a.		p
4.2.3.7	Mechanical strength		—
	EPAC shall have adequate mechanical strength and be constructed to withstand such rough handling that may be expected in normal use.		p
	Compliance is checked by:		—
	Applying impacts to the battery pack mounted on the EPAC by means of the spring hammer as specified in IEC 60068-2-75. The battery pack is rigidly supported	0,7 J	p
	d) The ambient temperature shall be between 5 °C and 35 °C	20P	P
	e) Maximum wind speed shall not exceed 3 m/s	Om/s	P
	f) The battery shall be fully charged according to the manufacturer's instructions		P
4.2.4.2.2	Test procedure		—
	a) Check that there is no electric motor assistance when pedaling backwards.	no electric motor assistance when pedaling backwards	P
	The test to ensure the compliance to this cause shall be adapted to the technology used. For example pedal backwards and check the no load current point or that no torque is del ivered on the driving wheel		P
	b) Worst case conditions of gear ratio and speed shall be applied.	Greatest gear ratio	P
	c) Worst condition for speed is defined as 90% of cut off speed.		P
	d) Measure the distance traveled from cessation of pedaling and actuating the switch brake simultaneously (if any) to no power corresponding to no load current point provided by the electric motor by using:	2,09m	P
	speed versus time measurement		P
	direct or indirect torque versus distance measurement (e.g. motor current).		N/A
	or any other appropriate method		N/A
	e) Carry out the test ten times and then average		P
4.2.4.3	Start up assistance mode		—

EN 15194:2017			
Clause	Requirement + Test	Result - Remark	Verdict
4.2.4.3.1	Requirements		
	EPAC can be equipped with a start up assistance mode up to 6km/h designed speed or lower values as specified by the manufacturer. Unauthorized use shall be prevented.	No such assistance mode	N/A
	This mode shall be activated by the voluntary maintained action of the user either when riding without pedaling or when the user is pushing the cycle.		N/A
4.2.4.3.2	Test method		—
4.2.4.3.2 .1	Test conditions		—
	a) The test may be performed either on a test track, a test bench or on a stand that keeps the motor driven wheel free of the ground.		N/A
	b) The speed-measuring device shall have the following characteristics: Accuracy: ± 2% Resolution: 0.1 km/h		N/A
	c) The ambient temperature shall be between 5 °C and 35 °C.		N/A
	d) Maximum wind speed: 3 m/s.		N/A
	e) The battery shall be fully charged according to the manufacturer's instructions.		N/A
4.2.4.3.2 .2	Test procedure		—
	a) Pre-condition the EPAC by running it for 5 min at 80% of the maximum assistance speed as declared by the manufacturer, then stop.		N/A
	b) Activate the start up assistance mode and verify that the speed increases up to 6 km/h maximum designed speed or lower value.		N/A
	c) Verify that speed is going down to 0 km/h when start up assistance mode is deactivated and the current drops to a value equal to or less than no load current point when free rolling.		N/A
	d) Activate the start up assistance mode.		N/A
	e) Verify that speed decreases when the start up assistance mode is activated and the current drops to a value equal to or less than no load current point.		N/A
	f) Activate the start up assistance mode and maintain it for 1min.		N/A
	g) Verify that speed is equal to or less than 6 km/h.		N/A
4.2.5	Electro Magnetic Compatibility		Not check
4.2.6	Maximum speed for which the electric motor gives assistance		—
4.2.6.1	Requirements		
	The maximum speed for which the electric motor gives assistance may differ by ±5% of the speed indicated on the label described within Clause 5 when determined according to the test method described in 426.2, from 25 km/h or lower values as specified by the manufacturer		P
	During a production conformity check the maximum speed may		N/A

EN 15194:2017			
Clause	Requirement + Test	Result - Remark	Verdict
	differ by ±10% from the above-mentioned determined value		
4.2.6.2	Test method		—
4.2.6.2.1	Test conditions		—
	a) The test may be performed either on a test track a test bench or on a stand that keeps the motor driven wheel free of the ground	On a test bench	P
	b) The speed-measuring device shall have the following characteristics: Accuracy ±2% Resolution 0 1 km/h		P
	c) The ambient temperature shall be between 5 °C and 35 °C	20P	P
	d) Maximum wind speed 3 m/s	0 m/s	P
	e) The battery shall be fully charged according to the manufacturer instructions		P
4.2.6.2.2	Test procedure		
	Any appropriate method for checking for this requirement is acceptable; one solution is to measure the cut-off speed another being to measure the torque output The following example describes the cut-off speed test		P
	a) Pre-condition the EPAC by running it for at 80% of the maximum assistance speed as declared by the manufacturer.	20 knvhi;5 min	P
	b) Record continuously the current and note the speed at which the current drops to a value equal to or less than * no load current point".	25,9<26.25 km/h; 0,4 A	P
	c) Whilst pedaling, ride steadily to reach a speed equal to 125 times (if possible by design) the maximum assistance speed as declared by the manufacturer		N/A
	d) Verify the noted value in b) is equal to or less than the maximum speed declared by the manufacturer	Maximum speed declared by the manufacturer: 25 km/h	P
4.2.7	Maximum power measurement		
4.2.7.1	Measurement at the engine shaft		
	The maximum continuous rated power shall be measured according to EN 60034-1 when the motor reaches its thermal equilibrium as specified by the manufacturer.		P
	NOTE Thermal equilibrium: temperatures of motor parts do not vary more than 2K per hour.		P
	In circumstance where the power is measured directly at the shaft of the electronic motor, the result of the measurement shall be decreased by 1,10 to consider the measurement uncertainty and then by 1,05 to include for example the transmission unless the real values of these losses are determined.	Directly at the shaft of the electronic motor	P
4.2.7.2	Alternative method		
	When the power is measured at the wheel, the result of the measurement is the reading value. Annex D gives guidance on how to measure the power at the wheel.		N/A

EN 15194:2017			
Clause	Requirement + Test	Result - Remark	Verdict
5	Marking, labeling		
	In addition to the requirements of EN 14764, the EPAC shall be visibly and durably marked according to EN 15194 as follows: —EPAC According to EN 15194 —XX km/h xx W		P
6	Instruction for use		
	In addition to the instructions required by the bicycles standard EN 14764, each EPAC shall be provided with a set of instructions containing information on		P
	1) concept and description of electric assistance		P
	2) recommendation for washing		P
	3) control and tell tales		P
	4) specific EPAC recommendations for use		P
	5) specific EPAC warnings		P
	6) recommendations about battery charging and charger use as well as the importance of following the instruction contained on the label of the battery charger		P

Photos: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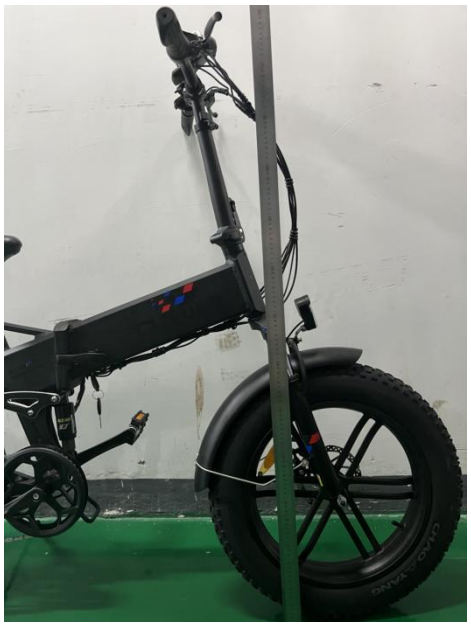	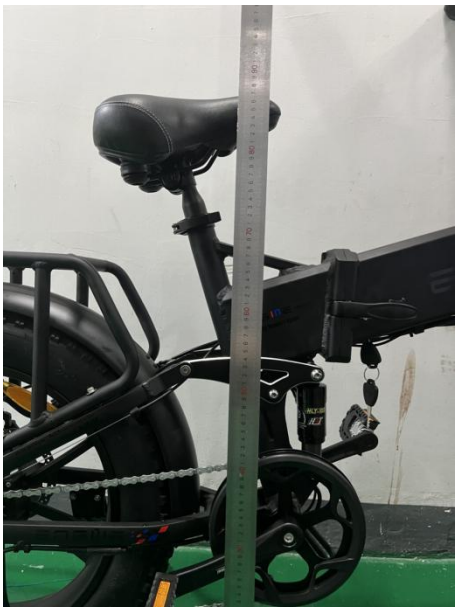
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